APPENDIX J

Transportation Study

APPENDIX J.1

Transportation Assessment

TRANSPORTATION ASSESSMENT FOR THE DTLA SOUTH PARK PROPERTIES SITES 2 & 3 PROJECT 1105 AND 1120 S. OLIVE STREET

LOS ANGELES, CALIFORNIA

DECEMBER 2019

PREPARED FOR

MREG 1105 OLIVE LLC

PREPARED BY

Gibson
transportation consulting, inc.

TRANSPORTATION ASSESSMENT FOR THE DTLA SOUTH PARK PROPERTIES SITES 2 & 3 PROJECT 1105 AND 1120 S. OLIVE STREET

LOS ANGELES, CALIFORNIA

December 2019

Prepared for:

MREG 1105 OLIVE LLC

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Chapter 1
Introduction

This study presents the transportation assessment for the proposed DTLA South Park Properties Sites 2 & 3 Project at 1105 and 1120 S. Olive Street (Project) within the Central City Community Plan Area of the City of Los Angeles (City).The methodology and base assumptions used in the analysis were established in conjunction with the Los Angeles Department of Transportation (LADOT).

PROJECT DESCRIPTION

The Applicant is proposing the construction of a mixed-use development with 536 apartment units and 6,153 square feet (sf) of ground floor commercial space, including retail and restaurant uses, on Site 2 and a mixed-use development with 713 apartments and 11,277 sf of commercial space, evenly split between retail and restaurant uses, on Site 3. Parking would be provided on-site, with driveways on Olive Street and Margo Street (alley) for Site 2 and on Olive Street and an alleyway between Olive Street and Hill Street for Site 3. Pedestrian access to the Project would be provided along Olive Street and along 11th Street. Olive Street is a one-way northbound street and Margo Street is a one-way southbound alleyway between Olive Street and Grand Avenue, and the Site 3 alleyway generally runs in the southbound direction that turns and meets Olive Street between 11th Street and 12th Street.

The Project would be constructed in two phases. Phase 1 (Site 2) is anticipated to be completed in Year 2024 and Phase 2 (Full Buildout) (Sites 2 and 3) is anticipated to be complete in Year 2026.

The conceptual Project site plan is illustrated in Figures 1A and 1B and the Project location is shown in Figure 2.

PROJECT LOCATION AND TRANSPORTATION ANALYSIS STUDY AREA

Site 2 is bounded by 11th Street to the north, Olive Street to the east, the AT&T parking structure to the south, and the Margo Street alley to the west. Site 2 consists of five parcels contained within three Assessor's Parcel Numbers (APNs): APN 5139-020-025, APN 5139-020-007, and APN 5139-020-006.

Site 3 is bound by 11th Street to the north, an alleyway to the east, an office tower to the south, and Olive Street to the west. Site 3 consists of six parcels contained within three APNs: APN 5139-019-040, APN 5139-019-015, and APN 1390-190-11.

The Project Sites are currently occupied by active surface parking facilities. The Project Sites are located in Council District 14, in the South Park area of downtown Los Angeles, approximately 0.5 miles north of the Santa Monica Freeway (I-10), 0.6 miles east of the Harbor Freeway (I-110/SR 110), 1.5 miles southwest of the Hollywood Freeway (US 101), and 2.4 miles west of the Santa Ana Freeway (I-5).

As shown in Figure 2, the traffic analysis Study Area includes a geographic area bounded by 11th Street to the north, Olive Street to the east, Pico Boulevard to the south, and Grand Avenue to the west. Detailed traffic analyses were conducted at key intersections within the Study Area.

The Project is served by numerous transit lines along Figueroa Street, Flower Street, Grand Avenue, Broadway, Hill Street, Olive Street, Pico Boulevard, and Olympic Boulevard operated by the Los Angeles County Metropolitan Transportation Authority (Metro), LADOT's Downtown Area Shuttle (DASH), LADOT's Commuter Express (CE), Santa Monica Big Blue Bus, Foothill Transit, Orange County Transportation Authority (OCTA), Montebello Bus Lines, and Torrance Transit.

In addition, the Project Sites are located approximately 0.25 miles northeast of the Metro Pico Station, which provides service to the Metro Blue Line and Metro Expo Line, and approximately 0.75 miles southeast of the Metro 7th Street/Metro Center Station, which provides service to the Metro Red Line, Metro Purple Line, Metro Blue Line and Metro Expo Line. The Metro Red Line runs between North Hollywood and downtown Los Angeles, the Metro Purple Line runs between Koreatown and downtown Los Angeles, the Metro Blue Line runs between Long Beach and downtown Los Angeles, and the Metro Expo Line runs between Santa Monica and downtown Los Angeles.

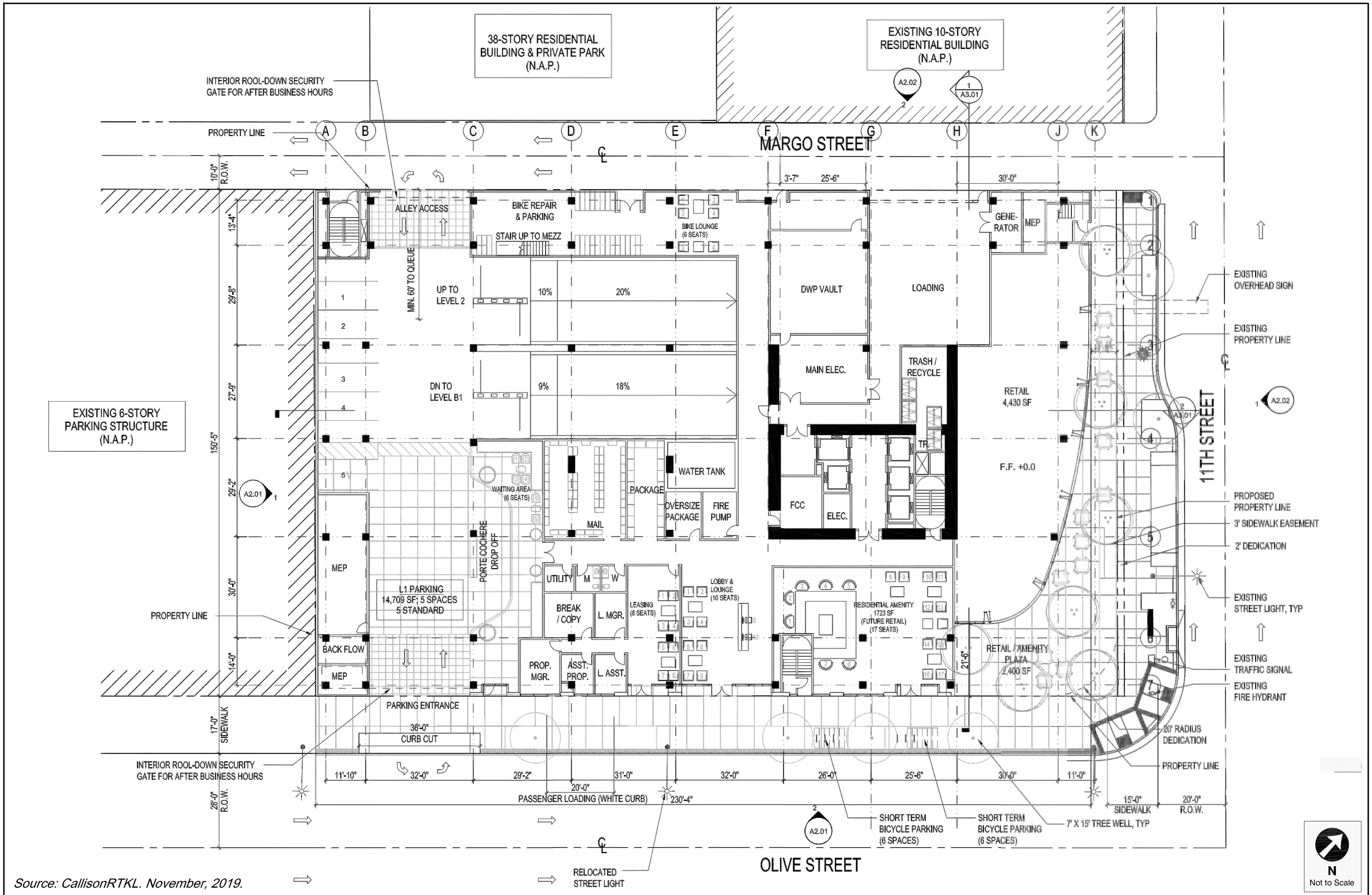
In addition to the transit lines that provide service within the Project vicinity, bicycle lanes are currently provided on Figueroa Street, 11thStreet, Main Street, and Grand Avenue.

STUDY SCOPE

The scope of analysis for this study was developed in consultation with LADOT and is consistent with *Transportation Assessment Guidelines* (LADOT, July 2019) (TAG) and in compliance with *2018 California Environmental Quality Act (CEQA) Statute and Guidelines* (California Association of Environmental Professionals, 2018) (CEQA Guidelines). The base assumptions and technical methodologies (i.e., vehicle miles traveled, trip generation, study locations, analysis methodology, etc.) were identified as part of the study approach and were outlined in a Memorandum of Understanding (MOU) that was reviewed and approved by LADOT and is provided in Appendix A.

ORGANIZATION OF REPORT

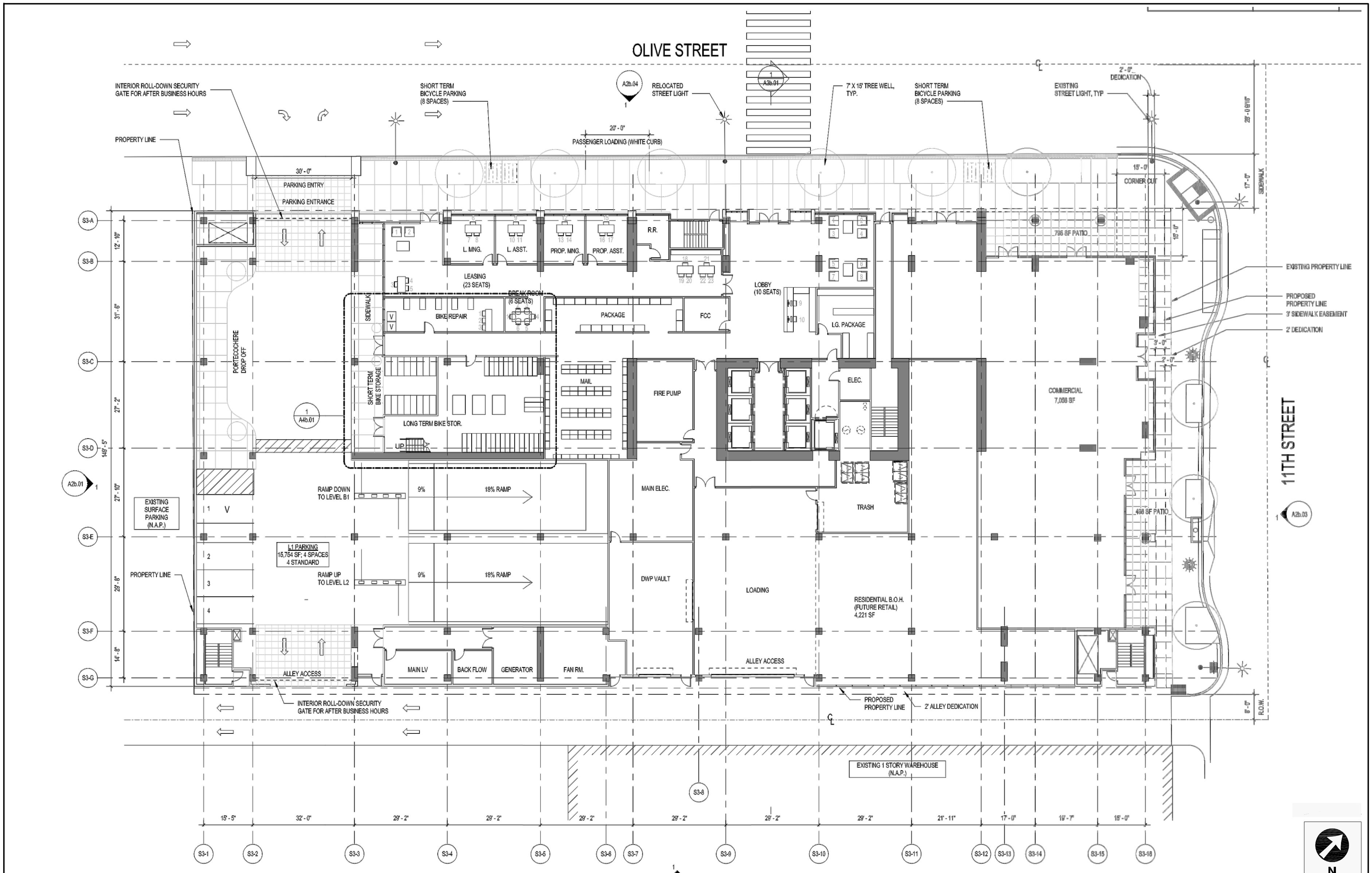
This report is divided into five chapters, including this Introduction. Chapter 2 describes the existing and future circulation system, traffic volumes, and traffic conditions in the Study Area. Chapter 3 presents the CEQA analysis of transportation impacts. Chapter 4 details the non-CEQA transportation analyses. Chapter 5 summarizes the analyses and study conclusions. The appendices contain supporting documentation, including the MOU that outlines the study scope and assumptions, and additional details supporting the technical analyses.



Source: CallisonRTKL. November, 2019.

PROJECT SITE PLAN (SITE 2)

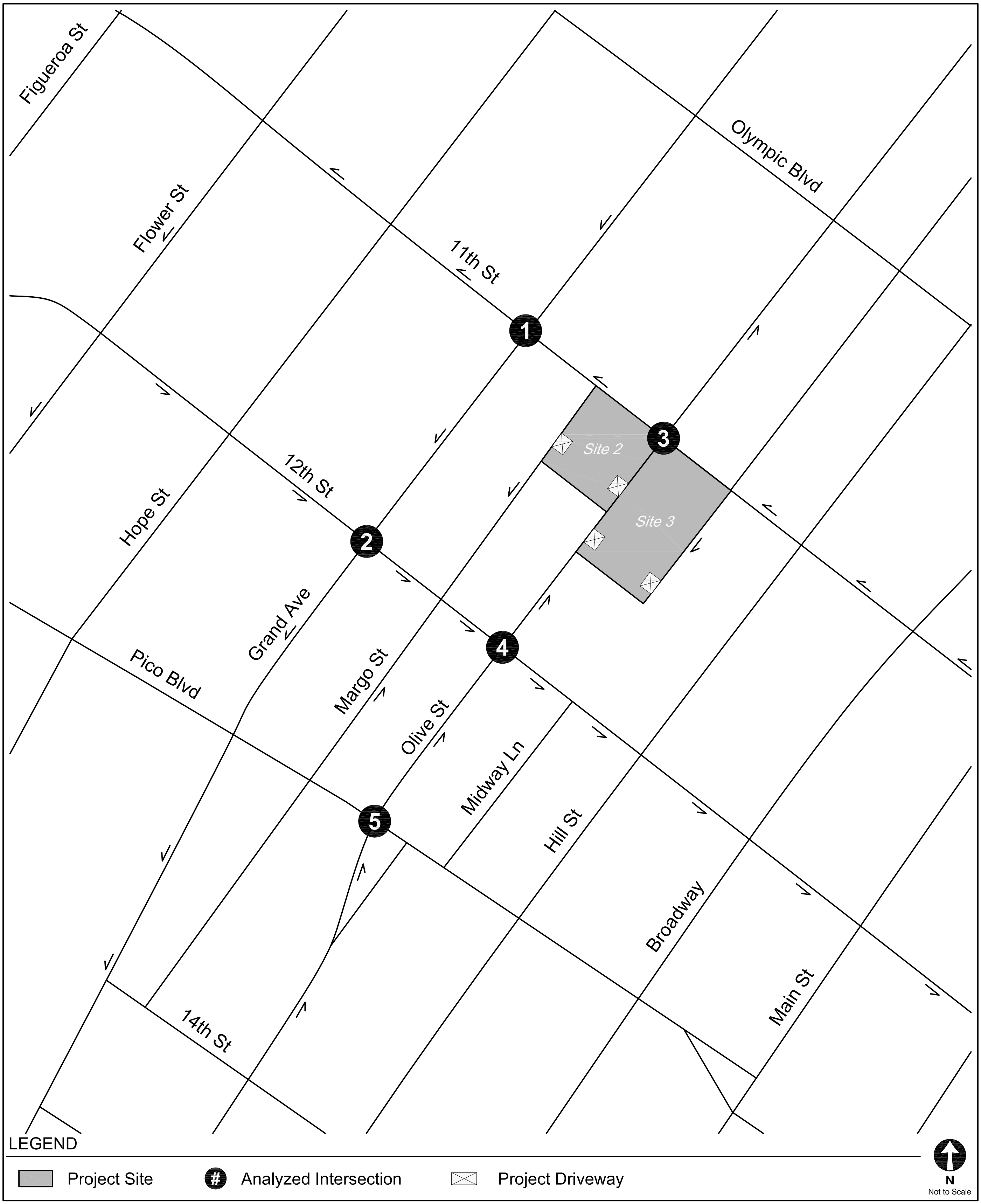
FIGURE 1A



Source: CallisonRTKL. April, 2018.

PROJECT SITE PLAN (SITE 3)

FIGURE 1B



STUDY AREA & ANALYZED INTERSECTIONS

FIGURE 2

Chapter 2
Project Context

A comprehensive data collection effort was undertaken to develop a detailed description of existing and future conditions in the Project Study Area.

The Existing Conditions analysis includes an assessment of the existing transportation infrastructure and conditions of the Study Area including freeway and street systems, transit service, as well as pedestrian and bicycle circulation, at the time the MOU was approved in October 2019. Fieldwork (lane configurations, signal phasing, parking restrictions, etc.) for the analyzed intersections was collected in Year 2019. Fieldwork (lane configurations) for the analyzed intersections is provided in Figure 3, traffic count worksheets in Appendix B, and LOS and delay worksheets in Appendix C.

In addition, this chapter contains a discussion of the future conditions detailing the assumptions used to develop the Future without Project conditions in Year 2024 and Year 2026, which correspond to projected occupancy of Phase 1 and Phase 2 (Full Buildout) of the Project, respectively.

STUDY AREA

The Study Area includes a geographic area approximately 0.5 miles (north-south) by approximately 0.5 miles (east-west) generally bounded by 11th Street to the north, Olive Street to the east, Pico Boulevard to the south, and Grand Avenue to the west. This Study Area was established in consultation with LADOT based on the following factors identified in the TAG:

1. Primary driveway(s)
2. Intersections at either end of the block on which the Project is located or up to 600 feet from the primary Project driveway(s)

3. Unsignalized intersections adjacent to the Project site that are integral to the Project's site access and circulation plan

4. Signalized intersections in proximity to the Project site where 100 or more Project trips would be added

A total of five signalized intersections, listed in Table 1, were identified for detailed analysis during the MOU process. Figure 2 illustrates the location of the Project Site in relation to the surrounding street system and the five study intersections. The existing lane configurations at the analyzed intersections are provided in Figure 3.

EXISTING TRANSPORTATION CONDITIONS

Existing Street System

The existing street system in the Study Area consists of a regional roadway system including freeways, primary and secondary arterials, and collector and local streets that provide regional, sub-regional, or local access and circulation within the Study Area. These transportation facilities generally provide two to six travel lanes and usually allow parking on one or both sides of the street. Typically, the speed limits range between 25 and 35 miles per hour (mph) on the streets and 55 mph on the freeways surrounding downtown.

Street classifications are designated in *Mobility Plan 2035, An Element of the General Plan* (Los Angeles Department of City Planning [LADCP], September 2016) (the Mobility Plan). The Mobility Plan has revised street standards in an effort to provide a more enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. The available facilities in the Study Area are defined by the following in the Mobility Plan:

- Freeways are high-volume, high-speed roadways with limited access provided by interchanges that carry regional traffic through and do not provide local access to adjacent land uses.

- Arterial Streets are major streets that serve through traffic, as well as provide access to major commercial activity centers. Arterials are divided into two categories:

- o <u>Boulevards</u> represent the widest streets that typically provide regional access to major destinations and include two categories:
    - <u>Boulevard I</u> provides up to four travel lanes in each direction with a target operating speed of 40 mph
    - <u>Boulevard II</u> provides up to three travel lanes in each direction with a target operating speed of 35 mph
- o <u>Avenues</u> pass through both residential and commercial areas and include three categories:
    - <u>Avenue I</u> provides up to two travel lanes in each direction with a target operating speed of 35 mph
    - <u>Avenue II</u> provides up to two travel lanes in each direction with a target operating speed of 30 mph
    - <u>Avenue III</u> provides up to two travel lanes in each direction with a target operating speed of 25 mph

- <u>Collector Streets</u> are generally located in residential neighborhoods and provide access to and from arterial streets for local traffic and are not intended for cut-through traffic. They provide one travel lane in each direction with operating speed of 25 mph.
- <u>Local Streets</u> are intended to accommodate lower volumes of vehicle traffic and provide parking on both sides of the street. They provide one travel lane in each direction with a target operating speed of 15 to 20 mph. Local streets include two categories:
    - o <u>Continuous</u> local streets connect to other streets at both ends
    - o <u>Non-continuous</u> local streets lead to a dead-end

Primary regional access to the Project Sites is provided by I-110/SR 110 and I-10. In the vicinity of the Project Site, the Study Area is served by major arterial streets such Grand Avenue, Olive Street, and Pico Boulevard. The following is a brief description of the major roadways in the Study Area, including their classifications under the Mobility Plan:

<u>Freeways</u>

- <u>I-10</u> – I-10 generally runs in the east-west direction and is located 0.50 miles south of the Project Site. In the vicinity of the Project Site, I-10 provides four travel lanes in each direction. Access to and from I-10 is available via interchanges at Flower Street, Grand Avenue, and Los Angeles Street.

- I-110/SR 110 – I-110/SR 110 generally runs in the north-south direction and is located approximately 0.60 miles west of the Project Site. In the vicinity of the Project Site, I-110/ SR 110 provides three travel lanes in each direction. Access to and from I-110/SR 110 is available via interchanges at 11th Street/Chick Hearn Court and 9th Street.

Roadways

- Grand Avenue – Grand Avenue is a designated Modified Avenue II that runs in the north-south direction and is located west of the Project Site. It provides four southbound travel lanes and a southbound bike lane on the west side of the street. Travel lanes are generally 11 feet wide and the total paved width is 90 feet. Daytime two-hour metered parking is generally available within the Study Area.

- Margo Street – Margo Street is a designated alley that runs in the southbound-only direction and is located west of Site 2. The total paved width is 16 feet. It provides one southbound travel lane. Parking is not available along the alley .

  Site 3 Alley – Site 3 Alley is a designated alley that runs in the southbound-only direction. It is located east of Site 3 and extends around a surface lot south of Site 3. It provides one southbound travel lane that becomes a two-way eastbound-westbound alley connecting to Olive Street. The total paved width is 16 feet in the southbound portion and 20 feet in the portion that runs east-west. Parking is not available along the alley.
- Olive Street – Olive Street is a designated Modified Avenue II that runs in the north-south direction and is located adjacent to the eastern boundary of the Project Site. It provides four northbound travel lanes and a northbound bike lane on the east side of the street. Travel lanes are generally 11 feet wide and the total paved width is 90 feet. Daytime two-hour metered parking is generally available within the Study Area.

- 11th Street – 11th Street is a designated Modified Collector Street that runs in the east-west direction and is located north of the Project Sites. It provides one westbound travel lane and a westbound bike lane on the north side of the street. The travel lane is generally 11 feet wide and the total paved width is 64 feet. Daytime one-hour metered parking is generally available within the Study Area.

- 12th Street – 12th Street is a designated Modified Collector Street and Avenue II between Figueroa Street and Flower Street that runs in the east-west direction and is located adjacent to the southern boundary of the Project Sites. It provides two eastbound travel lanes. Travel lanes are generally 11-12 feet wide and the total paved width is 64 feet. Daytime two-hour metered parking is generally available within the Study Area.

- Pico Boulevard – Pico Boulevard is a designated Modified Boulevard II between Figueroa Street and Flower Street, a designated Avenue I between Flower Street and Broadway, and a designated Modified Avenue III west of Broadway. It runs in the east-west direction and is located south of the Project Site. It provides four travel lanes, two in each direction. Travel lanes are generally 11-12 feet wide and the total paved width is 100 feet. Four-hour metered daytime parking, with peak hour restrictions, is generally available on both sides of the street east of Hope Street within the Study Area. Parking is not available west of Hope Street within the Study Area.

The existing lane configurations at the study intersections are provided in Figure 3. The existing intersection mobility facilities are shown in Figure 4 and the transportation facilities are shown in Figure 5.

Existing Transit System

Both bus and Metro rail transit service are available as part of the public transit system in the vicinity of the Project Site. The Study Area is served by bus lines operated by Metro, DASH, CE, Santa Monica Big Blue Bus, Foothill Transit, OCTA, Torrance Transit, Gardena Municipal Bus, and Montebello Transit.

Bus transit service in the Project vicinity is available along the following streets:

- Figueroa Street
- Flower Street
- Grand Avenue
- Olive Street
- Hill Street
- Broadway
- Main Street
- Olympic Boulevard
- Pico Boulevard

As previously detailed, in addition to the bus lines that provide service within the Project vicinity, Metro Rail operates several rail lines in the Study Area. The Metro Red Line runs between North Hollywood and downtown Los Angeles, the Metro Purple Line runs between Koreatown and downtown Los Angeles, the Metro Blue Line runs between Long Beach and downtown Los Angeles, and the Metro Expo Line runs between Santa Monica and downtown Los Angeles. The Metro Red Line and Metro Purple Line have connecting service to the Metro Blue Line and Metro Expo Line at the 7th Street/Metro Center Station, approximately 0.75 miles northwest of the Project Site. The Metro Pico Station, which provides service to the Metro Blue Line and Metro Expo Line, is located approximately 0.25 miles southwest of the Project Sites.

Figure 6 illustrates the existing transit service in the Study Area. Table 2 summarizes the various transit lines operating in the Study Area for each of the service providers in the region, the type of service (peak vs. off-peak, express vs. local), and frequency of service. The average headways during the peak hour were estimated using detailed trip and ridership data from April 2019 provided by Metro, as well as schedule information from each respective transit provider.

Tables 3A and 3B summarize the total available capacity of the Metro, DASH, CE, and other municipal bus systems during the morning and afternoon peak hours, based on the frequency of service of each line, the standing capacity of each bus, and the average peak hour load in each direction. As shown in Tables 3A and 3B, the Metro transit lines within 0.25 miles walking distance of the Project Sites currently have available capacity for approximately 17,691 additional riders during the morning peak hour and 15,835 riders during the afternoon peak hour. No data were readily available for the LADOT DASH, LADOT CE, Santa Monica Big Blue Bus, and Gardena Municipal Bus systems. The transit lines with bus stops or stations located more than 0.25 miles from the Project Sites were not included.

Existing Bicycle System

Based on the Mobility Plan and *2010 Bicycle Plan, A Component of the City of Los Angeles Transportation Element* (LADCP, 2010) (2010 Bicycle Plan), the existing bicycle system in the Study Area consists of a limited coverage of bicycle lanes (Class II) and bicycle routes (Class III). Bicycle lanes are a component of street design with dedicated striping, separating vehicular traffic from bicycle traffic. These facilities offer a safer environment for both cyclists and motorists. Bicycle routes are identified as bicycle-friendly streets where motorists and cyclists share the roadway and there is no dedicated striping of a bicycle lane. Bicycle routes are preferably located on collector and lower volume arterial streets. The following bicycle facilities are provided along corridors within the Study Area:

Bicycle Lanes (Class II)

- Grand Avenue
- Olive Street
- Main Street

- 11th Street
- Figueroa Street

Bicycle Routes (Class III)

- Broadway north of 11th Street

Existing Pedestrian Facilities

The walkability of existing facilities is based on the availability of pedestrian routes necessary to accomplish daily tasks without the use of an automobile; these attributes are quantified by Walk Score and assigned a score out of 100 points. With the various commercial businesses and cultural centers adjacent to the residential neighborhoods of downtown Los Angeles, the walkability of the Study Area is approximately 93 points[1], compared to the citywide score of 67 points.

The sidewalks that serve as routes to the Project Sites provide proper connectivity and adequate widths for a comfortable and safe pedestrian environment. The sidewalks provide connectivity to pedestrian crossings at intersections within the Study Area. The following signalized intersections provide pedestrian facilities to limit illegal mid-block crossing to the Project Sites (all intersections have marked pedestrian crossings on all approaches):

1. Grand Avenue & 11th Street
2. Grand Avenue & 12th Street
3. Olive Street & 11th Street
4. Olive Street & 12th Street

Each of the listed signalized intersections provides pedestrian phasing, crosswalk striping, and Americans with Disabilities Act wheelchair ramps as shown in Figure 4.

[1] Walk Score (www.walkscore.com) rates the Project Sites (1105 and 1120 S. Olive Street) with a score of 95 of 100 possible points (scores assessed on September 24, 2019 for the Downtown district). Walk Score calculates the walkability of specific addresses by taking into account the ease of living in the neighborhood with a reduced reliance on automobile travel.

Vision Zero

As described in *Vision Zero: Eliminating Traffic Deaths in Los Angeles by 2025* (City of Los Angeles, August 2015), Vision Zero is a traffic safety policy that promotes strategies to eliminate collisions that result in severe injury or death. Vision Zero has identified the High Injury Network, a network of streets based on the collision data from the last five years, where strategic investments would have the biggest impact in reducing death and severe injury. The following streets within the Study Area have been identified as part of the High Injury Network:

- Pico Boulevard between Grand Avenue and Broadway
- Olive Street between Pico Boulevard and 12th Street

Existing Traffic Volumes

Intersection turning movement counts for typical weekday morning (7:00 AM to 10:00 AM) and afternoon (3:00 PM to 6:00 PM) peak periods were collected in Years 2017 and 2019 while schools were in session. Counts taken before 2019 were factored up by approximately 1% each year to reflect Year 2019 conditions. Thus, the existing volumes utilized in this analysis (i.e., traffic volume figures, LOS calculations, etc.) reflect Existing Year 2019 Conditions.

The existing intersection peak hour traffic volumes are illustrated in Figure 7.

FUTURE CUMULATIVE TRANSPORTATION CONDITIONS

The forecast of Future without Project conditions was prepared in accordance with procedures outlined in Section 15130 of Chapter 3, Title 14, Article 9 of the CEQA Guidelines. Specifically, two options are provided for developing the cumulative traffic volume forecast:

> "(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the [lead] agency, or
>
> "(B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions

> contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency."

As described in detail below, this analysis includes traffic growth both from future projects (option "A" above, the "Related Projects") and from regional growth projections (option "B" above, or ambient growth). The ambient growth factor discussed below likely includes some traffic growth resulting from the Related Projects. Therefore, the traffic analysis provides a highly conservative estimate of Future without Project traffic volumes.

The Future without Project traffic projections reflect growth in traffic over existing conditions from ambient growth, which reflects increase in traffic due to regional growth and development outside the Study Area, and traffic generated by ongoing or entitled projects in, or in the vicinity of, the Study Area.

Ambient Traffic Growth

Traffic levels are expected to increase over time as a result of regional growth and development in and around the Study Area. The CMP provides general growth factors based on regional modeling. As derived from Exhibit D-1 of the CMP, the downtown Los Angeles area is estimated to experience a total regional growth in traffic of approximately 3.3% between the years of 2015 and 2030, which equates to compounded annual growth of approximately 0.22% per year. However, based on discussions with LADOT through the MOU process, an ambient growth factor of 1% per year compounded annually was applied to remain conservative by adjusting the existing traffic volumes to reflect the effects of the regional growth and development by Year 2024 and 2026. The total adjustments applied over the five-year and seven-year periods were 5.10% and 7.21%, respectively. These growth factors account for increases in traffic due to potential projects not yet proposed or projects outside the Study Area.

Related Projects

As part of the non-CEQA transportation analysis,, this study also considered the effects of the Project in relation to other developments either proposed, approved, or under construction (collectively, the Related Projects). With this information, the potential impact of the Project was, therefore, evaluated within the context of the cumulative impact of past, present, and probable future developments capable of producing related or cumulative impacts.

The list of Related Projects is based on information provided by LADCP and LADOT, as well as recent studies of projects in the area. The Related Projects are detailed in Table 4 and shown in Figure 8. Though the buildout years of many of these Related Projects are uncertain and may be well beyond the buildout year of the Project, and notwithstanding that some may never be approved or developed, they were all considered as part of this transportation assessment and conservatively assumed to be completed by the Project buildout years of 2024 and 2026. The traffic growth due to the development of Related Projects considered in this analysis is highly conservative and, by itself, substantially overestimates the actual traffic volume growth in downtown Los Angeles that would likely occur prior to Project buildout years. With the addition of the 1% per year ambient growth factor previously discussed, the Future without Project cumulative condition is even more conservative.

Using these conservative assumptions, the potential traffic impacts of the Project were evaluated. The development of estimated traffic volumes added to the study intersections as a result of Related Projects involves the use of a three-step process: trip generation, trip distribution, and trip assignment.

Trip Generation. Trip generation estimates for the Related Projects were provided by LADOT or were calculated using a combination of previous study findings and the trip generation rates contained in *Trip Generation, 10th Edition* (Institute of Transportation Engineers, 2017). The Related Projects trip generation estimates summarized in Table 4 are very conservative in that they do not in every case account for either the trips generated by the existing uses to be removed or the likely use of other travel modes (e.g., transit, bus, bicycling, walking, carpool, etc.) Further, they do not account for the internal capture trips within a multi-use development or for the interaction of trips between multiple Related Projects within downtown Los Angeles, in which one Related Project serves as the origin for a trip destined for another Related Project.

Trip Distribution. The geographic distribution of the traffic generated by the Related Projects is dependent on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of population from which the employees/residents and potential patrons of the proposed developments are drawn, and the location of these projects in relation to the surrounding street system. These factors are considered along with logical travel routes through the street system to develop a reasonable pattern of trip distribution.

Traffic Assignment. The trip generation estimates for the Related Projects were assigned to the local street system using the trip distribution pattern described above. Figure 9 shows the peak hour traffic volumes associated with these Related Projects at the study intersections.

Future without Project Traffic Volumes

The Related Projects volumes were then added to the existing traffic volumes after adjustment for ambient growth through the projected Phase 1 completion year of 2024 and projected Full Buildout year of 2026. As discussed above, this is a conservative approach as many of the Related Projects may be reflected in the ambient growth rate. These volumes represent the Future without Project conditions (i.e., existing traffic volumes added to ambient traffic growth and Related Project traffic growth) for year 2024 and year 2026 and are shown in Figure 10 and Figure 11, respectively, for the five study intersections.

Future Transportation System Improvements

The analysis of Future Conditions accounted for roadway improvements that were funded and expected to be implemented prior to the buildout of the proposed Project. These roadway improvements result in changes to the physical configuration at the study intersections. Other proposed roadways improvement projects that are not funded (e.g., Avenue of the Angels) and traffic/trip reduction strategies such as Transportation Demand Management (TDM) programs for individual buildings and developments were conservatively omitted from the Future Conditions analyses.

Metro Regional Connector. The Metro Regional Connector project is a 1.9-mile underground light rail system that will extend from the Metro Gold Line Little Tokyo/Arts District Station to the 7th Street/Metro Center Station, allowing passengers to make direct transfers between the Blue, Expo, Red, and Purple Lines. The Metro Regional Connector will improve access to both local and regional destinations by providing continuous service between these lines and providing connectors to other rail lines via the 7th Street/Metro Center Station. Three new transit stations will be developed with the operation of the Metro Regional Connector. Based on recent information provided on the Metro website[2], the Metro Regional Connector is anticipated to be complete and in operation by Year 2022. The Metro Regional Connector will be underground and will not affect the at-grade street configurations of the corridors in the Study Area.

Los Angeles Streetcar. The Los Angeles Streetcar project will revive the historic streetcar service that once spanned 600 miles of the City in the early 20th Century. The proposed 4.0-mile route of the Los Angeles Streetcar project will closely follow the alignments that originally ran through downtown. The Los Angeles Streetcar will enhance mobility and transit circulation and support the growth and revitalization of downtown. The Los Angeles Streetcar was anticipated to begin operation in year 2020. However, the design of the Los Angeles Streetcar has not been finalized, remains unfunded and, therefore, was not included in the future year analyses.

2010 Bicycle Plan. The 2010 Bicycle Plan identifies the City's vision for a more integrated bicycle network throughout the City, including within the Study Area. It proposes new bicycle lanes on Figueroa Street and Flower Street. It also proposes amenities to create bicycle-friendly streets on Hope Street. The dedicated bicycle lanes on Figueroa Street have already been installed and, therefore, were included in the analysis. Since there is currently no schedule for implementation of the remaining bicycle facilities, they were not included in the analysis.

Mobility Plan. In the Mobility Plan, the City identifies key corridors as components of various "mobility-enhanced networks." Each network is intended to focus on improving a particular aspect of urban mobility, including transit, neighborhood connectivity, bicycles, pedestrians, and vehicles. The specific improvements that may be implemented in those networks have not yet been identified, and there is no schedule for implementation and, therefore, no changes to

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[2]Construction updates for the Metro Regional Connector are based on information provided at www.metro.net (accessed on October 15, 2019).

vehicular lane configurations were made as a result of the Mobility Plan. However, the following mobility-enhanced networks included corridors within or near the Study Area:

Transit Enhanced Network: Figueroa Street, Broadway, and Main Street are identified as Transit-Enhanced Streets.

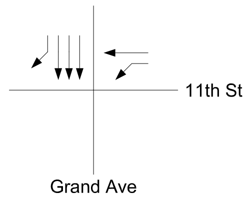
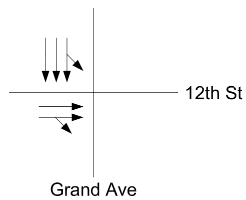
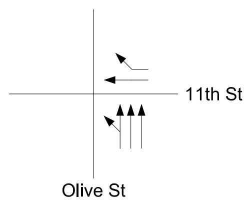
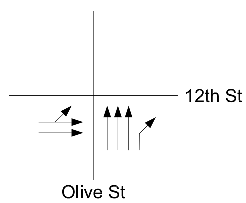
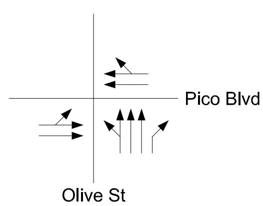
Neighborhood Enhanced Network: Hill Street, Hope Street north of Pico Boulevard, and Pico Boulevard east of Hope Street are identified as part of the Neighborhood Enhanced Network.

Bicycle Path Network / Bicycle Network: 11th Street and Olive Street within the Study Area have been identified as part of the Bicycle Path Network. Figueroa Street, Flower Street, Grand Avenue, Hill Street, Main Street, and Pico Boulevard are identified as part of the Bicycle Network.

Vehicle Enhanced Network: No streets within the Study Area have been identified as part of the Vehicle Enhanced Network.

Pedestrian Enhanced District: The following corridors were identified as part of the Pedestrian Enhanced District:

- Figueroa Street
- Flower Street
- Hope Street
- Grand Avenue
- Olive Street
- Hill Street
- Broadway
- Main Street
- Olympic Boulevard
- Pico Boulevard

	EXISTING CONDITIONS (YEAR 2019)	FUTURE CONDITIONS (YEAR 2024)	FUTURE CONDITIONS (YEAR 2026)
1. Grand Avenue & 11th Street		Same as Existing Conditions	Same as Existing Conditions
2. Grand Avenue & 12th Street		Same as Existing Conditions	Same as Existing Conditions
3. Olive Street & 11th Street		Same as Existing Conditions	Same as Existing Conditions
4. Olive Street & 12th Street		Same as Existing Conditions	Same as Existing Conditions
5. Olive Street & Pico Boulevard		Same as Existing Conditions	Same as Existing Conditions

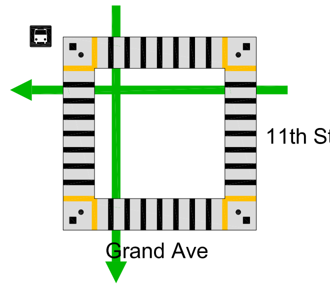
INTERSECTION LANE CONFIGURATIONS

FIGURE 3

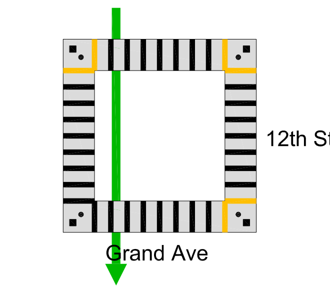
LEGEND

- Continental Crosswalk
- Tactile Curb
- Bike Lane
- Sharrow
- Ped Signal
- Ped Call Button
- Transit

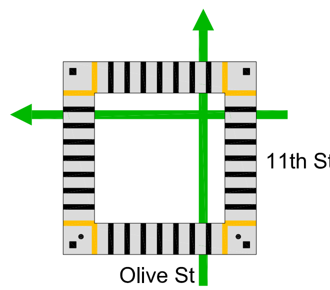
1. Grand Avenue & 11th Street



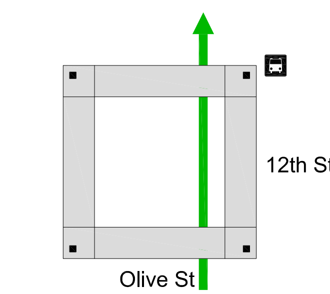
2. Grand Avenue & 12th Street



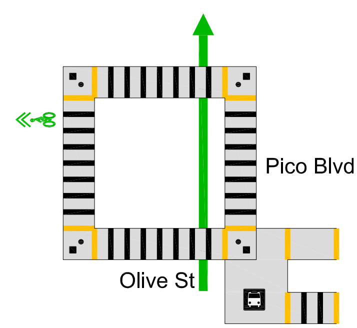
3. Olive Street & 11th Street



4. Olive Street & 12th Street

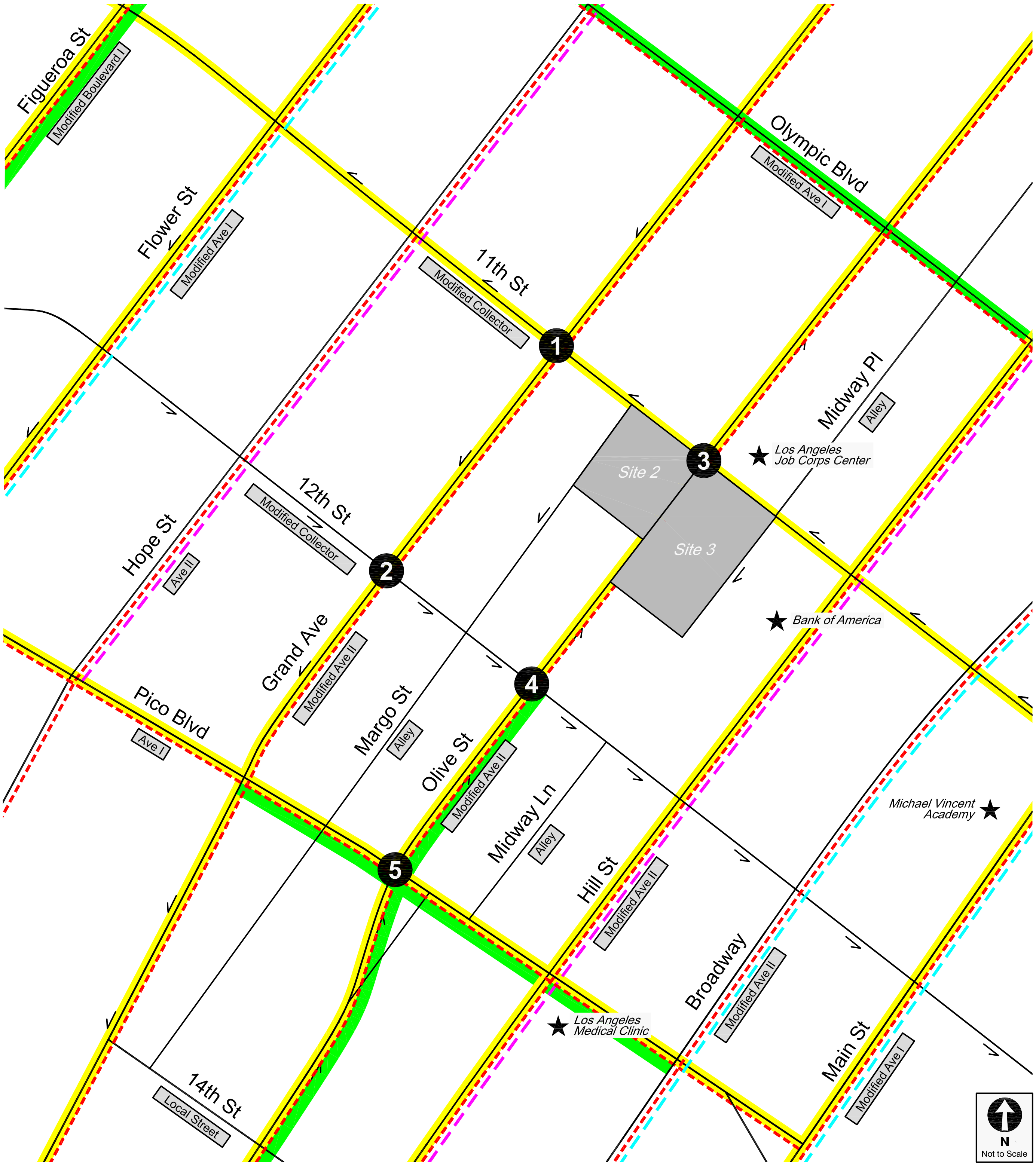


5. Olive Street & Pico Boulevard



EXISTING INTERSECTION MOBILITY FACITILIES

FIGURE 4

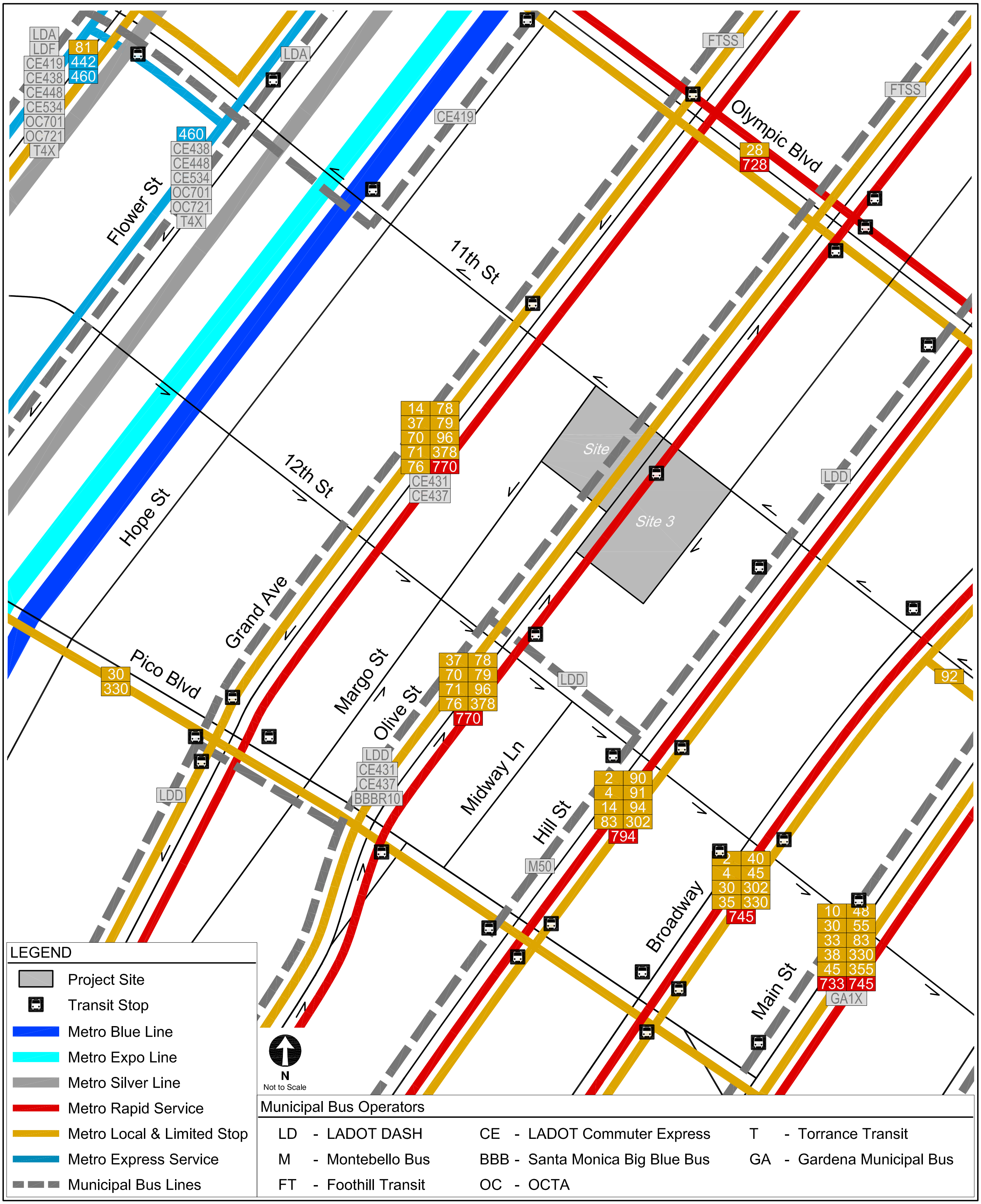


LEGEND

Project Site
Analyzed Intersection
Key Locations
Street Classification
High Injury Network
Mobility Plan 2035 Bicycle Network
Pedestrian Enhanced Network
Neighborhood Enhanced Network
Mobility Plan 2035 Transit Enhanced Network

TRANSPORTATION FACILITIES

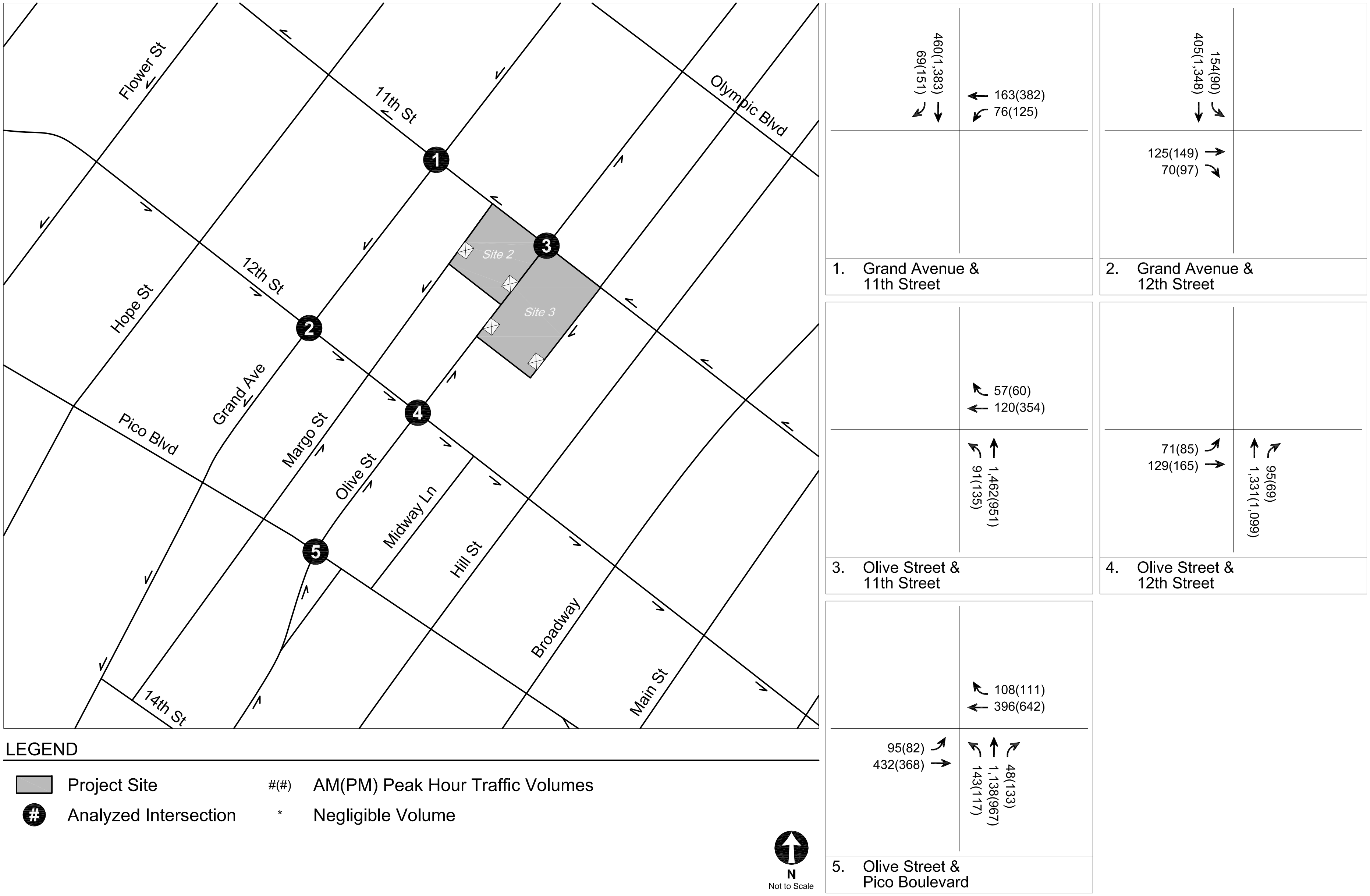
FIGURE 5



EXISTING TRANSIT SERVICE

FIGURE 6

Gibson transportation consulting, inc.

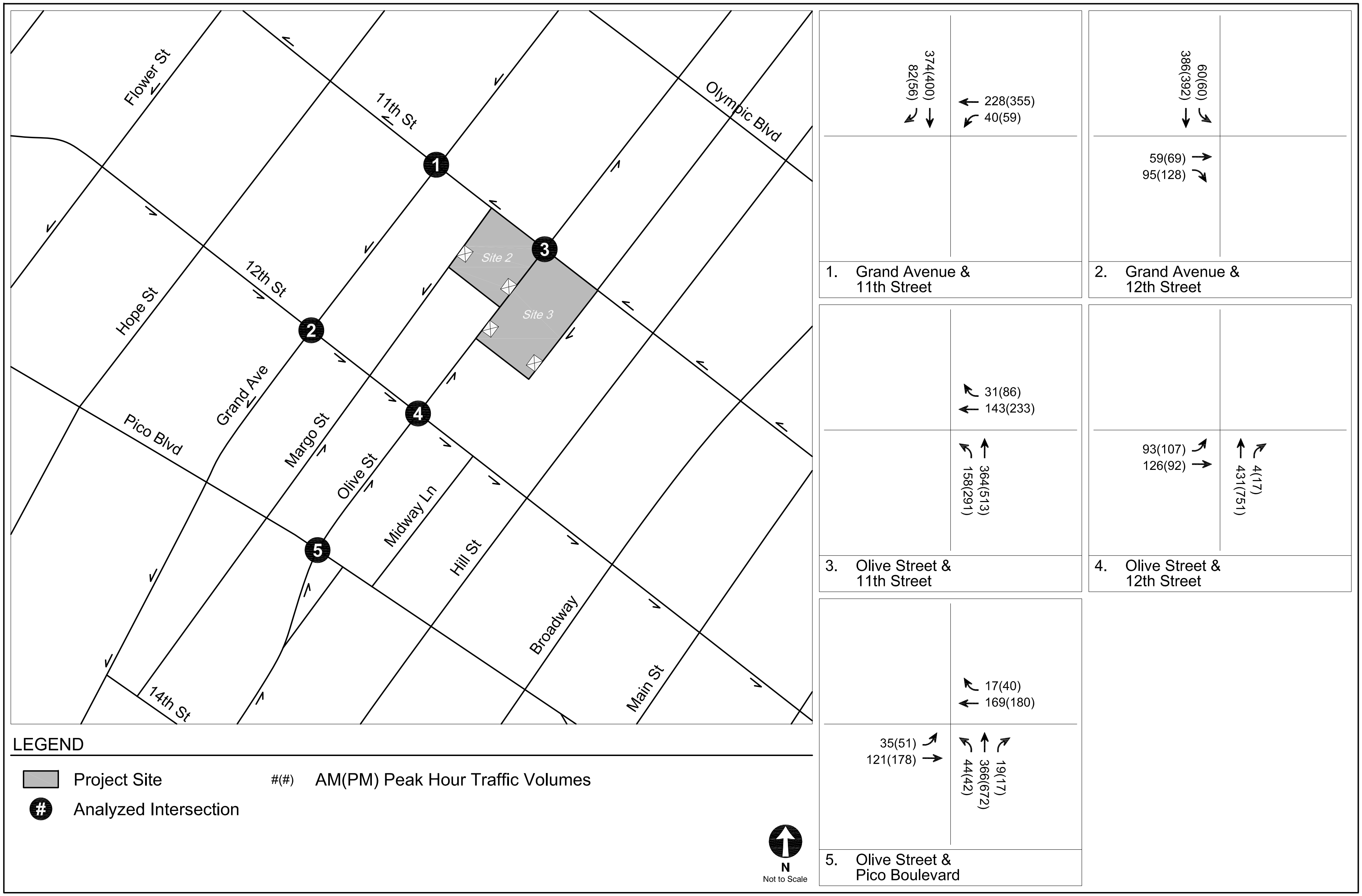


EXISTING CONDITIONS (YEAR 2019)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
7

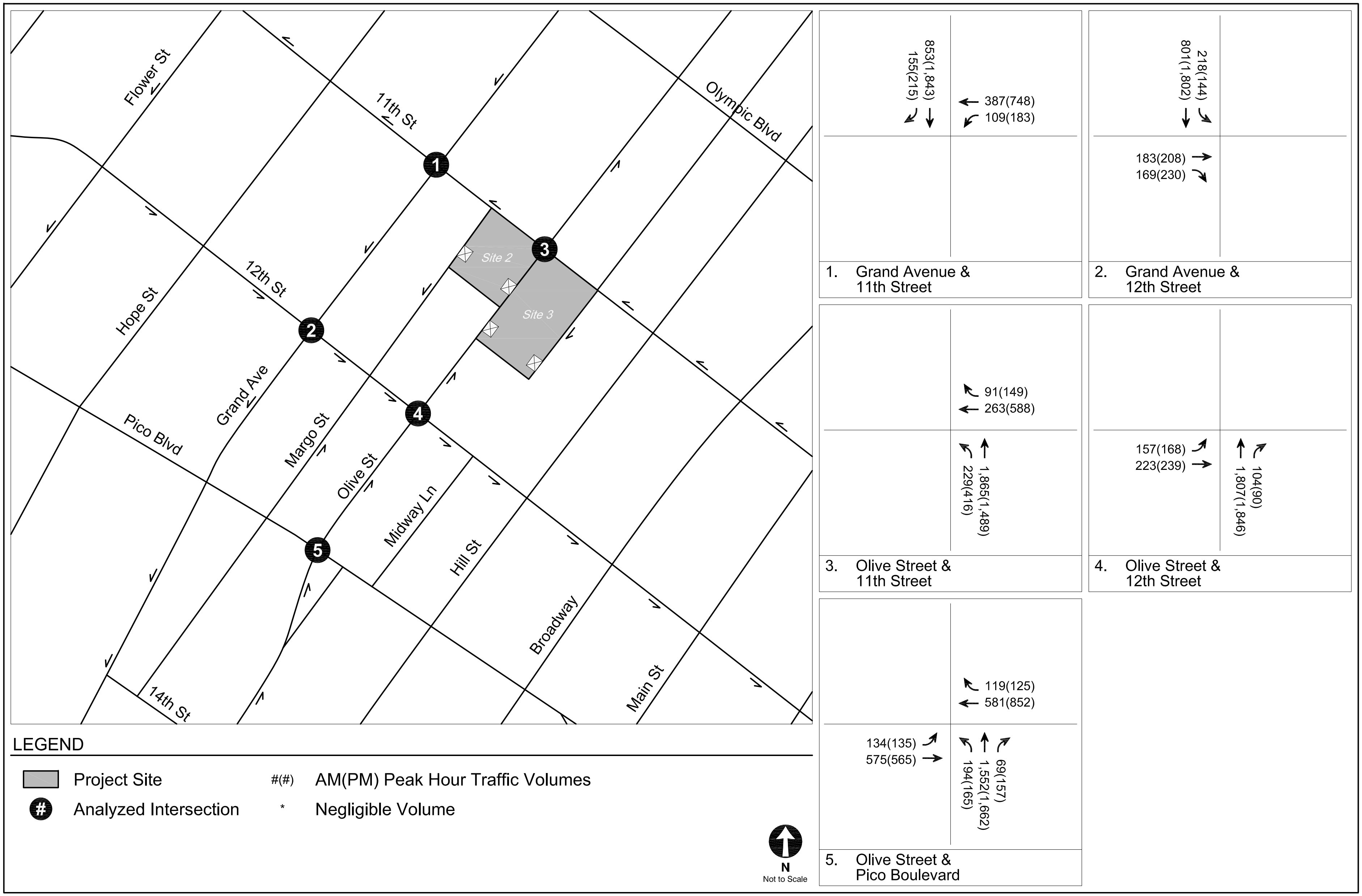
LOCATIONS OF RELATED PROJECTS

FIGURE 8



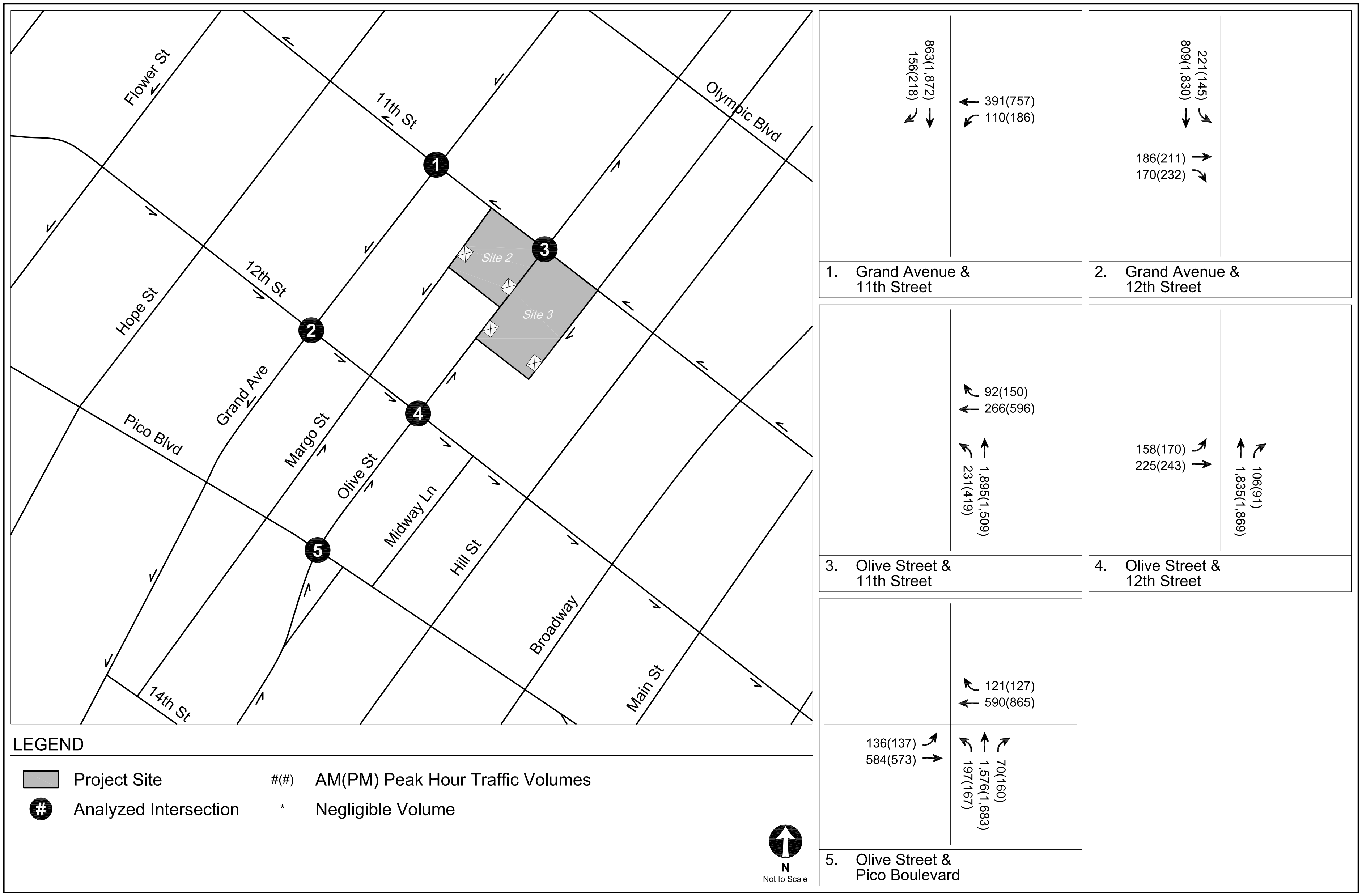
RELATED PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

FIGURE
9



FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2024)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
10



FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2026)
PEAK HOUR TRAFFIC VOLUMES

FIGURE 11

TABLE 1
STUDY INTERSECTIONS

No	N/S Street	E/W Street
1.	Grand Avenue	11th Street
2.	Grand Avenue	12th Street
3.	Olive Street	11th Street
4.	Olive Street	12th Street
5.	Olive Street	Pico Boulevard

TABLE 2
EXISTING TRANSIT SERVICE

Provider, Route, and Service Area		Service Type	Hours of Operation	Average Headway (minutes)			
				AM Peak Period		PM Peak Period	
Metro				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
2	Downtown Los Angeles - Pacific Palisades via Sunset Boulevard	Local	5:00 AM - 2:00 AM	30	13	16	27
4	Downtown Los Angeles - West Los Agneles - Santa Monica via Santa Monica Boulevard	Local	6:00 AM - 9:00 PM	14	11	10	15
10	Downtown Los Angeles - West Hollywood via Temple Street & Melrose Avenue	Local	4:00 AM - 1:00 AM	12	10	11	13
14	Downtown Los Angeles - Beverly Hills via Beverly Boulevard	Local	24-Hour	8	8	9	8
28	Downtown Los Angeles - Century City via W Olympic Boulevard	Local	4:30 AM - 1:30 AM	16	15	16	17
30	Downtown Los Angeles - Indiana Station via San Vicente Boulevard, Pico Boulevard & E 1st Street	Local	24-Hour	7	9	8	7
33	Downtown Los Angeles - Santa Monica via Venice Boulevard	Local	24-Hour	20	10	10	20
37	Downtown Los Angeles - Washington/Fairfax Transit Hub via Adams Boulevard	Local	4:30 AM - 12:30 AM	8	11	10	8
40	Downtown Los Angeles - South Bay Galleria via Martin Luther King Jr Boulevard - Hawthorne	Local	4:30 AM - 1:00 AM	13	14	15	13
45	Lincoln Heights - Downtown Los Angeles - Rosewood via Broadway	Local	24-Hour	7	13	11	9
48	Downtown Los Angeles - Avalon Station via Main Street & S San Pedro Street	Local	4:30 AM - 11:30 PM	12	11	11	12
55	Downtown Los Angeles - Willowbrook Station via Compton Avenue	Local	5:00 AM - 9:00 PM	10	18	16	10
70	Downtown Los Angeles - El Monte via Garvey Avenue	Local	24-Hour	13	13	14	14
71	Downtown Los Angeles - Cal State LA via Wabash Avenue & City Terrace Drive	Local	5:30 AM - 9:00 PM	20	22	N/A	N/A
76	Downtown Los Angeles - El Monte via Valley Boulevard	Local	24-Hour	15	15	15	15
78	Downtown Los Angeles - Arcadia via Las Tunas Drive/Huntington Drive	Local	4:00 AM - 2:00 AM	12	8	8	11
79	Downtown Los Angeles - Arcadia via Las Tunas Drive/Huntington Drive	Local	4:00 AM - 2:00 AM	12	8	8	11
81	Eagle Rock - Downtown Los Angeles - Harbor Freeway Station via Figueroa Street	Local	4:30 AM - 2:00 AM	9	11	13	11
83	Downtown Los Angeles - Eagle Rock via York Boulevard - Pasadena Avenue	Local	24-Hour	34	24	27	30
90	Downtown Los Angeles - Sunland via Glendale Avenue & Foothill Boulevard	Local	5:30 AM - 11:30 PM	16	17	17	17
91	Downtown Los Angeles - Sunland via Glendale Avenue & Foothill Boulevard	Local	4:00 AM - 12:00 AM	16	17	17	17
92	Downtown Los Angeles - Burbank Station via Glendale Boulevard, Brand Boulevard & Glenoaks Boulevard	Local	24-Hour	27	27	24	34
94	Downtown Los Angeles - Sun Valley via San Fernando Road	Local	4:00 AM - 2:00 AM	30	30	30	34
96	Downtown Los Angeles - Burbank Station via Riverside Drive & LA Zoo	Local	4:30 AM - 9:30 PM	30	30	34	34
330	West Hollywood - Downtown Los Angeles via San Vicente Boulevard, Pico Boulevard, & East 1st Street	Limited	5:30 AM - 7:30 PM	27	34	34	34
355	Downtown Los Angeles - Willowbrook Station via Compton Avenue	Limited	6:30 AM - 5:30 PM	17	N/A	N/A	60
378	Downtown Los Angeles - Arcadia via Las Tunas Drive/Huntington Drive	Limited	5:30 AM - 7:00 PM	N/A	30	30	N/A
442	Downtown Los Angeles - Hawthorne/Lennox Station via Manchester Boulevard	Express	5:30 AM - 7:00 PM	45	N/A	N/A	45
460	Downtown Los Angeles - Disneyland via Harbor Transitway & I-105 Freeway	Express	4:00 AM - 2:00 AM	22	22	30	24
728	Downtown Los Angeles - Century City via West Olympic Boulevard	Rapid	5:00 AM - 9:00 PM	13	13	15	15
733	Downtown Los Angeles - Santa Monica via Venice Boulevard	Rapid	4:30 AM - 12:30 AM	22	13	17	22
745	Downtown Los Angeles - Harbor Freeway Station via Broadway	Rapid	4:30 AM - 9:00 PM	10	11	11	10
770	Downtown Los Angeles - El Monte Station via Garvey Boulevard & Caesar E Chavez Avenue	Rapid	5:00 AM - 9:00 PM	14	13	13	14
794	Downtown Los Angeles - Sylmar Station via San Fernando Road	Rapid	4:30 AM - 9:30 PM	24	20	27	24
Metro Rail				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
Blue	Downtown Los Angeles - Long Beach	Rail	24-Hour	6	6	7	6
Expo	Downtown Los Angeles - Santa Monica	Rail	5:00 AM - 2:00 AM	8	8	8	8
Metro Transitway				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
Silver	Harbor Gateway Transit Center - El Monte	BRT	3:30 AM - 3:00 AM	5	5	5	6
LADOT DASH				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
A	Little Tokyo - City West	Local	6:30 AM - 6:30 PM	7	7	7	7
D	Union Station - South Park	Local	5:00 AM - 7:00 PM	5	5	5	5
F	Financial District - Exposition Park - USC	Local	6:00 AM - 6:30 PM	10	10	10	10
LADOT Commuter Express				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
419	Chatsworth - Northridge - Granada Hills - Mission Hills - Downtown Los Angeles	Express	5:30 AM - 8:30 PM	19	N/A	N/A	23
431	Westwood - Palms - Downtown Los Angeles	Express	6:30 AM - 7:30 PM	30	N/A	N/A	23
437	Venice - Marina Del Rey - Mar Vista - Culver City - Downtown Los Angeles	Express	6:00 AM - 7:00 PM	25	N/A	N/A	30
438	Redondo Beach - Hermosa Beach - Manhattan Beach - El Segundo - Downtown Los Angeles	Express	5:30 AM - 7:30 PM	12	N/A	N/A	15
448	Rancho Palos Verdes - Rolling Hills Estates - Harbor City	Express	5:30 AM - 7:00 PM	20	N/A	N/A	20
534	Westwood - Century City - West Los Angeles - Downtown Los Angeles	Express	7:00 AM - 6:30 PM	23	N/A	N/A	23
Foothill Transit				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
SS	Silver Streak - Montclair - Downtown Los Angeles	Express	24-Hour	20	9	9	20
OCTA				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
701	Huntington Beach - Los Angeles	Express	5:30 AM - 7:00 PM	20	N/A	N/A	20
721	Fullerton - Los Angeles	Express	5:00 AM - 7:30 PM	36	30	30	36
Santa Monica Big Blue Bus				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
R10	Santa Monica - Downtown Los Angeles	Rapid	5:30 AM - 9:30 PM	20	16	18	20
Torrance Transit				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
4	Torrance - Downtown Los Angeles	Express	5:00 AM - 8:00 PM	45	N/A	N/A	45
Gardena Municipal Bus				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
1X	Gardena - Downtown Los Angeles	Express	5:30 AM - 10:00 PM	34	34	34	34
Montebello Bus				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
50	Washington Boulevard	Local	4:00 AM - 11:00 PM	30	30	30	30

Notes:
Metro: Los Angeles County Metropolitan Transportation Authority
LADOT DASH & Commuter Express: Los Angeles Department of Transportation
OCTA: Orange County Transportation Authority
Santa Monica Big Blue Bus: City of Santa Monica Big Blue Bus
Torrance Transit: City of Torrance Transit Department
Gardena Municipal Bus: City of Gardena Department of Transportation
Montebello Bus: City of Montebello Transportation Deparrtment
AM Peak from 6-10 AM
PM Peak from 3-7 PM

TABLE 3A
TRANSIT SYSTEM CAPACITY IN STUDY AREA - MORNING PEAK HOUR

Provider, Route, and Service Area		Capacity per Trip [a]	Peak Hour Ridership [b]				Average Remaining Capacity per Trip		Remaining Peak Hour Capacity	
			Peak Load		Average Load					
			NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
Metro Bus Service										
2/302	Downtown Los Angeles - Pacific Palisades via Sunset Boulevard	50	8	6	5	3	45	47	90	212
4	Downtown Los Angeles - West Los Angeles - Santa Monica via Santa Monica Boulevard	50	10	5	6	4	44	46	187	242
10/48	Downtown Los Angeles - West Hollywood via Temple Street & Melrose Avenue/Avalon Station via Main Street & S San Pedro Street	50	16	21	11	17	39	33	195	190
14/37	Downtown Los Angeles - Beverly Hills via Beverly Boulevard/Washington/Fairfax Transit Hub via Adams Boulevard	50	18	14	12	8	38	42	304	315
28	Downtown Los Angeles - Century City via W Olympic Boulevard	50	24	13	18	7	32	43	120	172
30/330	Downtown Los Angeles - Indiana Station via San Vicente Boulevard, Pico Boulevard & E 1st Street	50	21	11	13	6	37	44	315	307
33	Downtown Los Angeles - Santa Monica via Venice Boulevard	50	13	8	10	4	40	46	120	265
40	Downtown Los Angeles - South Bay Galleria via Martin Luther King Jr Boulevard - Hawthorne	50	29	30	18	21	32	29	144	123
45	Lincoln Heights - Downtown Los Angeles - Rosewood via Broadway	50	30	27	20	16	30	34	248	153
70	Downtown Los Angeles - El Monte via Garvey Avenue	50	10	7	6	5	44	45	198	203
71	Downtown Los Angeles - Cal State LA via Wabash Avenue & City Terrace Drive	50	6	4	4	3	46	48	138	131
76	Downtown Los Angeles - El Monte via Valley Boulevard	50	6	5	4	4	46	47	185	186
78/79/378	Downtown Los Angeles - Arcadia via Las Tunas Drive/Huntington Drive	50	8	5	4	3	46	47	229	364
83	Downtown Los Angeles - Eagle Rock via York Boulevard - Pasadena Avenue	50	3	9	3	5	47	45	82	113
90/91	Downtown Los Angeles - Sunland via Glendale Avenue & Foothill Boulevard	50	6	11	5	5	45	45	169	158
94	Downtown Los Angeles - Sun Valley via San Fernando Road	50	5	5	4	4	46	46	92	92
96	Downtown Los Angeles - Burbank Station via Riverside Drive & LA Zoo	50	3	2	3	2	47	48	94	96
728	Downtown Los Angeles - Century City via West Olympic Boulevard	75	21	16	14	10	61	65	275	293
745	Downtown Los Angeles - Harbor Freeway Station via Broadway	75	28	21	19	13	56	62	350	342
770	Downtown Los Angeles - El Monte Station via Garvey Boulevard & Caesar E Chavez Avenue	75	6	6	5	4	70	71	298	320
794	Downtown Los Angeles - Sylmar Station via San Fernando Road	75	8	4	4	3	71	72	178	215
Metro Rail										
Blue	7th/Metro - Long Beach	375	N/A	N/A	151	85	224	290	2,072	2,900
Expo	7th/Metro - Santa Monica	375	N/A	N/A	92	135	283	240	2,052	1,740
LADOT DASH										
D	Union Station - South Park	30	6	18	N/A	N/A	24	12	288	144
LADOT Commuter Express										
431	Westwood - Palms - Downtown Los Angeles	50	Data currently not available							
437	Venice - Marina Del Rey - Mar Vista - Culver City - Downtown Los Angeles	50	Data currently not available							
Big Blue Bus										
R10	Santa Monica - Downtown Los Angeles	50	*Data currently not available*							
Gardena Municipal Bus										
1X	Gardena - Downtown Los Angeles	50	*Data currently not available*							
						Total Transit System Capacity			**17,691**	

Notes
Metro: Los Angeles County Metropolitan Transportation Authority.
[a] Capacity assumptions:
Metro Bus - 40 seated / 50 standing.
Metro Articulated Bus - 66 seated / 75 seated and standing standing.
Metro Expo/Blue Line - 55 seats / car, 4 cars / run during peak periods. Metro assumes a maximum capacity of 230% of seated capacity, or approximately 125 / car.
LADOT DASH - 25 seated / 30 seated and standing.
[b] Ridership information based on data from Metro for April 2019.

TABLE 3B
TRANSIT SYSTEM CAPACITY IN STUDY AREA - AFTERNOON PEAK HOUR

Provider, Route, and Service Area		Capacity per Trip [a]	Peak Hour Ridership [b]				Average Remaining Capacity per Trip		Remaining Peak Hour Capacity	
			Peak Load		Average Load					
			NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
Metro Bus Service										
2/302	Downtown Los Angeles - Pacific Palisades via Sunset Boulevard	50	5	9	3	5	47	45	94	203
4	Downtown Los Angeles - West Los Angeles - Santa Monica via Santa Monica Boulevard	50	5	10	3	6	47	44	201	231
10/48	Downtown Los Angeles - West Hollywood via Temple Street & Melrose Avenue/Avalon Station via Main Street & S San Pedro Street	50	28	17	21	12	29	38	145	219
14/37	Downtown Los Angeles - Beverly Hills via Beverly Boulevard/Washington/Fairfax Transit Hub via Adams Boulevard	50	19	20	10	13	40	37	320	278
28	Downtown Los Angeles - Century City via W Olympic Boulevard	50	18	25	12	18	38	32	141	128
30/330	Downtown Los Angeles - Indiana Station via San Vicente Boulevard, Pico Boulevard & E 1st Street	50	19	27	10	15	40	35	340	245
33	Downtown Los Angeles - Santa Monica via Venice Boulevard	50	8	15	5	10	45	40	135	230
40	Downtown Los Angeles - South Bay Galleria via Martin Luther King Jr Boulevard - Hawthorne	50	32	41	22	29	28	21	126	89
45	Lincoln Heights - Downtown Los Angeles - Rosewood via Broadway	50	36	33	20	23	30	27	248	122
70	Downtown Los Angeles - El Monte via Garvey Avenue	50	8	6	5	5	45	45	203	203
71	Downtown Los Angeles - Cal State LA via Wabash Avenue & City Terrace Drive	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
76	Downtown Los Angeles - El Monte via Valley Boulevard	50	6	5	4	3	46	47	184	188
78/79/378	Downtown Los Angeles - Arcadia via Las Tunas Drive/Huntington Drive	50	8	8	5	4	45	46	225	357
83	Downtown Los Angeles - Eagle Rock via York Boulevard - Pasadena Avenue	50	7	3	5	2	45	48	79	119
90/91	Downtown Los Angeles - Sunland via Glendale Avenue & Foothill Boulevard	50	10	7	7	5	43	45	162	158
94	Downtown Los Angeles - Sun Valley via San Fernando Road	50	8	5	6	4	44	46	88	92
96	Downtown Los Angeles - Burbank Station via Riverside Drive & LA Zoo	50	4	4	3	3	47	47	95	94
728	Downtown Los Angeles - Century City via West Olympic Boulevard	75	16	24	12	18	63	57	284	257
745	Downtown Los Angeles - Harbor Freeway Station via Broadway	75	29	37	18	21	57	54	356	297
770	Downtown Los Angeles - El Monte Station via Garvey Boulevard & Caesar E Chavez Avenue	75	11	5	7	4	68	71	289	320
794	Downtown Los Angeles - Sylmar Station via San Fernando Road	75	7	5	5	3	70	72	175	217
Metro Rail										
Blue	7th/Metro - Long Beach	375	N/A	N/A	100	228	275	147	2,544	1,470
Expo	7th/Metro - Santa Monica	375	N/A	N/A	147	126	228	249	1,653	1,805
LADOT DASH										
D	Union Station - South Park	30	6	18	N/A	N/A	24	12	288	144
LADOT Commuter Express										
431	Westwood - Palms - Downtown Los Angeles	50	Data currently not available							
437	Venice - Marina Del Rey - Mar Vista - Culver City - Downtown Los Angeles	50	Data currently not available							
Big Blue Bus										
R10	Santa Monica - Downtown Los Angeles	50	*Data currently not available*							
Gardena Municipal Bus										
1X	Gardena - Downtown Los Angeles	50	*Data currently not available*							
							Total Transit System Capacity		**15,835**	

Notes
Metro: Los Angeles County Metropolitan Transportation Authority.
[a] Capacity assumptions:
Metro Bus - 40 seated / 50 standing.
Metro Articulated Bus - 66 seated / 75 seated and standing standing.
Metro Expo/Blue Line - 55 seats / car, 4 cars / run during peak periods. Metro assumes a maximum capacity of 230% of seated capacity, or approximately 125 / car.
LADOT DASH - 25 seated / 30 seated and standing.
[b] Ridership information based on data from Metro for April 2019.

TABLE 4
RELATED PROJECTS LIST

No	Project	Address	Description	Trip Generation						
				Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
1.	LA Trade Tech College	400 W Washington Bl	6,300 students	101	38	139	172	80	253	253
2.	124 E Olympic Bl	124 E Olympic Bl	149-room hotel, 1,459 sf rooftop restaurant/bar, and 6,816 sf restaurant space	1,457	59	49	108	62	39	101
3.	11th & Hill Project	1115 S Hill St	172 condominium units and 6,850 sf restaurant	543	(45)	40	(5)	50	(7)	43
4.	Grand Residence	1229 S Grand Ave	161 condominium units and 3,000 sf restaurant	1,116	23	62	85	62	33	95
5.	1045 S Olive Street	1045 S Olive St	800 condominium units and 15,000 sf retail	5,289	69	297	366	306	166	472
6.	Hotel	1138 S Broadway	138-room hotel	644	20	25	45	22	25	47
7.	Amacon Project	1133 S Hope St	208 condominium units and 5,029 sf retail	1,543	20	74	94	91	50	141
8.	Restaurant	1036 S Grand Ave	7,149 sf restaurant	492	2	3	5	27	14	41
9.	1219 S Hope St	1219 S Hope St	75 hotel rooms and 2,650 sf retail	613	23	16	39	23	22	45
10.	Morrison Hotel	1246 S Hope St	258 high-rise apartments, 265 hotel rooms, and 6,000 sf retail	889	88	99	187	120	100	220
11.	SPR-Mixed-use Onyx West & East	1300 S Hope St	419 apartment units and 42,000 sf retail	4,280	88	105	193	136	102	238
12.	Olympic & Hill Mixed Use	1030 S Hill St	700 apartment units, 7,000 sf retail, 7,000 sf restaurant	3,392	49	193	242	181	104	285
13.	1323 S Flower St MU	1323 S Flower St	132-room hotel, 47 apartment units, and 4,000 sf rooftop bar/restaurant	1,287	33	40	73	61	39	100
14.	Flower Mixed-Use	1212 S Flower St	730 condominium units and 7,873 sf retail	3,956	78	233	311	229	121	350
15.	14th & Olive Mixed-Use	1340 S Olive St	156 apartment units, 5,000 sf retail and 10,000 sf restaurant	1,700	51	82	133	89	57	146
16.	Washington Bl Mixed-Use	200 E Washington Bl	111 affordable housing apartments, one apartment units, 7,300 sf retail	370	18	27	45	16	15	31
17.	14th St/Hill St (DTLA) Mixed-Use	1340 S Hill St	235 apartment units, 5,250 sf retail, and 4,000 sf restaurant	1,755	11	103	114	108	30	138
18.	Ethos Societe	806 S Garland Ave	118 apartment units, 69,295 sf office, 2,439 sf retail, 1,132 sf restaurant, 2,684 sf gym/spa	1,281	81	45	126	52	92	144
19.	Mixed-use	1100 S Main St	379 apartment units and 25,810 sf retail	385	9	103	112	78	14	92
20.	Broadway Mixed-Use	955 S Broadway	163 apartment units and 6,406 sf retail	1,275	21	72	93	74	43	117
21.	Mixed-Use	1334 S Flower St	188 apartment units and 10,096 sf retail/restaurant	1,038	(3)	63	60	67	22	89
22.	South Park Towers	1600 S Flower St	250 high-rise apartment units, 300-room hotel, 3,120 sf restaurant, 10,000 sf medical office	1,778	77	91	168	55	36	91
23.	City Lights	1300 S Figueroa St	1,024 hotel rooms	9,134	398	288	686	351	366	717
24.	Hill Street Mixed-Use	920 S Hill St	239 apartment units and 5,400 sf retail	1,476	23	84	107	87	50	137
25.	1370 S Flower St Residential	1410 S Flower St	152 apartment units and 1,184 sf retail	1,062	17	62	79	63	35	98
26.	Broadway Palace	928 S Broadway	667 apartment units, 17 condominium units, and 58,800 sf retail	4,715	21	229	250	272	109	381
27. [a]	Los Angeles Sports & Entertainment District	Figueroa St & Chick Hearn St	250,000 sf convention center expansion, 183-room hotel, 601,800 sf office, 1,152 apartment units, and 214,583 sf retail	27,007	1,254	721	1,975	1,085	1,637	2,722
28.	Embassy Tower	848 S Grand Ave	420 condominium units and 38,500 sf retail	3,882	66	144	210	212	165	377
29.	CIM South Park Apartments	888 S Hope St	526 apartment units	3,498	54	214	268	212	114	326
30.	1400 S Figueroa Street Residential Project	1400 S Figueroa St	106 apartment units and 4,834 sf retail	647	10	38	48	39	22	61
31.	845 Olive & 842 Grand Mixed-Use	845 S Olive St	208 apartment units and 2,430 sf retail	1,305	25	76	101	77	42	119
32.	Alexan South Broadway	850 S Hill St	305 apartment units, 3,500 sf retail, and 3,500 sf restaurant	1,998	29	108	137	117	67	184
33.	Olympic Tower	815 W Olympic Bl	374 condominium units, 373 hotel rooms, 33,498 sf office, 65,074 sf retail, and 10,801 sf conference center	4,423	166	170	336	189	185	374
34.	Apex Phase II	700 W 9th St	341 condominium units and 11,687 sf retail	2,624	37	146	183	143	95	238
35.	Prop Co II Site 3	1120 S Olive St	713 high-rise apartment units, 7,125 sf retail, 7,125 sf restaurant	3,009	73	162	235	258	160	418
36.	Mixed-Use	820 S Olive St	589 apartment units and 4,500 sf retail	3,309	63	202	264	195	106	302
37.	Figueroa Centre	911 S Figueroa St	220 hotel rooms, 200 apartment units, and 94,080 sf commercial	7,141	145	164	309	316	289	605
38.	1018 W Ingraham St	1018 W Ingraham St	43 apartment units and 7,400 sf retail	602	8	21	29	31	23	54
39.	Metropolis Mixed-Use	899 S Francisco St	836 condominium units, 480 hotel rooms, 988,225 sf office, and 46,000 sf retail	8,010	307	318	625	387	512	899
40.	Foreman and Clark Building	701 S Hill St	165 apartments, 11,902 sf restaurant, and 14,032 sf restaurant	2,792	18	57	75	132	127	259
41.	8th/Grand/Hope Project	754 S Hope St	409 condominium units and 7,329 sf retail	2,315	35	137	172	137	78	215
42.	Convention Center Modernization	NW Corner of Figueroa St & Venice Bl	Increase floor area by 1.8 million sf	25,236	--	--	--	9,777	225	10,002
43.	Mixed-Use	233 W Washington Bl	160 apartment units and 24,000 sf retail	1,764	25	56	81	89	71	160
44.	Mixed-Use	737 S Spring St	320 apartment units and 25,000 sf pharmacy/drugstore	3,942	72	141	213	167	116	283
45.	Mitsui Fudosan (Eighth and Figueroa Tower)	744 S Figueroa St	436 apartment units, 3,750 sf restaurant, and 3,750 sf retail	2,644	37	146	183	158	86	244
46.	Mixed-Use	732 S Spring St	400 apartment units and 15,000 sf retail	3,359	59	152	211	164	104	268
47.	Mixed-Use	755 S Los Angeles St	60,243 sf office, 16,694 sf retail, and 26,959 sf restaurant	2,482	110	57	167	105	100	205
48.	The City Market (Mixed-Use)	1057 S San Pedro St	877 apartment units, 68 condominium units, 210 hotel rooms, 549,141 sf office, 224,862 sf retail, and 744 cinema seats	16,433	837	434	1,271	632	957	1,589
49.	Mack Urban Site 1A	1155 S Olive St	258 room hotel, 1,896 sf specialty retail use, and 2,722 sf restaurant use	2,008	77	56	133	77	72	149
50.	The Reef - LA Mart/SOLA Village	1900 S Broadway	900 condominium units, 550 apartment units, 210 hotel rms, 143,100 sf retail, 180,000 sf office, 17,600 sf gallery/museum, and 8,000 sf gym	--	390	552	942	637	566	1,203
51.	Spring St Hotel	633 S Spring St	176 hotel rooms, 5,290 sf bar, and 8,430 sf restaurant	2,045	83	33	116	97	99	196
52.	7th & Maple Mixed-Use	701 S Maple Ave	452 apartment units, 6,800 sf retail, and 6,800 sf restaurant	3,199	67	179	246	185	105	290
53.	Southern California Flower Market Project	755 S Wall St	322 apartment units, 53,200 sf office, and 8,820 sf commercial	2,499	108	82	191	164	141	305
54.	Mixed-Use	601 S Main St	452 apartment units and 25,000 sf retail	2,686	36	144	179	152	87	238
55.	Mixed-Use (Herald Examiner)	1111 S Broadway	214 apartment units and 10,000 sf retail	5,198	144	176	319	258	274	532
56.	1323 S Grand Ave	1323 S Grand Ave	284 apartment units and 6,300 sf commercial	2,158	33	118	151	126	74	200
57.	940 S Hill Mixed-Use	940 S Hill St	232 apartment units and 14,000 sf retail	1,881	20	80	100	115	53	168
58.	LUXE Hotel Mixed-Use project	1020 S Figueroa St	435 condominium units, 300 hotel rooms, and 58,959 sf retail	4,859	150	199	349	228	169	397
59.	Fig + Pico Conference Center Hotels	1248-1260 S Figueroa St	1,162 hotel rooms and 13,145 sf restaurant	5,720	192	125	317	203	212	415
60.	949 S Hope Street Mixed-Use Development	949 S Hope St	236 apartment units and 5,954 sf retail	791	8	45	53	43	7	50
61.	Olympia Mixed-Use	1001 Olympic Bl	1,367 apartment units, 20,000 sf retail, and 20,000 sf restaurant	5,216	86	297	383	283	115	398
62.	Downtown LA Hotel	926 James M Wood Bl	247 hotel rooms	1,592	59	42	101	59	56	115
63.	945 W 8th Street	845 W 8th St	781 apartment units, and 6,700 sf commercial	2,869	63	146	209	144	91	235

Notes:

[a] The Los Angeles Sports and Entertainment District includes the remaining available development of the Specific Plan, including Fig Central located at 1101 S Flower Street (504 condominium units, 183 hotel rooms, and 166,000 sf retail), Circa located at 1200 S Figueroa Street (648 condominium units and 48,000 sf retail), and JW Marriott located at 1005 W Chick Hearn Court (170,000 sf conference/meeting space).

[b] Related project information provided by LADOT, Department of City Planning, and recent studies in the area.

Chapter 3
CEQA Analysis of Transportation Impacts

This chapter presents the results of an analysis of CEQA-related transportation impacts. The analysis identifies any potential conflicts the proposed Project may have with adopted City plans and policies and the improvements associated with the potential conflicts as well as the results of a Project vehicle miles traveled (VMT) analysis that satisfies State requirements under *State of California Senate Bill 743* (Steinberg, 2013) (SB 743).

METHODOLOGY

SB 743, made effective in January 2014, required the Governor's Office of Planning and Research to change the CEQA guidelines regarding the analysis of transportation impacts. Under SB 743, the focus of transportation analysis shifts from driver delay (level of service [LOS]) to VMT, in order to reduce of greenhouse gas emissions (GHG), create multimodal networks, and promote mixed-use developments.

To adapt to SB 743, the Los Angeles City Planning Commission, on February 28, 2019, recommended the approval of revised Los Angeles CEQA guidelines to include new transportation analysis screening procedures and thresholds, subsequently approved by the Los Angeles City Council on July 30, 2019. LADOT's TAG defines the methodology of analyzing a project's transportation impacts in accordance with SB 743.

Per the TAG, the CEQA transportation analysis contains the following thresholds for identifying significant impacts:

- Threshold T-1: Conflicting with Plans, Programs, Ordinances, or Policies
- Threshold T-2.1: Causing Substantial Vehicle Miles Traveled (VMT)
- Threshold T-2.2: Substantially Inducing Additional Automobile Travel

- Threshold T-3: Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use

The thresholds were reviewed and analyzed, as detailed in the following Sections 3A-3D.

Section 3A: Threshold T-1

Conflicting with Plans, Programs, Ordinances, or Policies Analysis

Threshold T-1 states that a project would result in an impact if it conflicts with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities.

PLANS, PROGRAMS, ORDINANCES, AND POLICIES

Table 2.1-1 of the TAG provides the City plans, policies, programs, ordinances and standards relevant in determining project consistency. Table 2.1-2 of the TAG provides a list of questions to help guide whether a project conflicts with the City's plans, programs, ordinances, or policies. The Project is consistent with the City documents listed in Table 2.1-1 of the TAG; therefore, the Project would not result in a significant impact under Threshold T-1. Detailed discussion of the plans, programs, ordinances, or policies related are provided.

Mobility Plan

The Mobility Plan combines "complete street" principles with the following five goals that define the City's mobility priorities:

1. Safety First
2. World Class Infrastructure
3. Access for all Angelenos
4. Collaboration, Communication, and Informed Choices
5. Clean Environments and Healthy Communities

The Project location and site access is consistent with the goals of the Mobility Plan as evidenced below:

Per Mobility Plan Chapter 2 – World Class Infrastructure, the Project site is located on Olive Street and 11th Street, which are both included in the Mobility Plan's Bicycle Enhanced Network and Pedestrian Enhanced District. The Bicycle Enhanced Network proposes improvements to streets to provide "safe, convenient, and comfortable local and regional bicycling facilities for people of all types and abilities" (Mobility Plan Policy 2.6). The Pedestrian Enhanced District identifies improvements to streets to ensure "high-quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment" (Mobility Plan Policy 2.3). The Project does not require any dedications or improvements along Olive Street or 11th Street to serve the long-term mobility needs identified in the Mobility Plan.

The Project does not propose repurposing existing curb space and does not propose narrowing or shifting existing sidewalk placement or paving or narrowing, shifting, or removing an existing parkway. Further, the Project does not propose modifying, removing, or otherwise affecting existing bicycle infrastructure.

The Project is also adjacent to alleys that will be prioritized for vehicular access, loading, and service access to the Project Site. The Project does not create a cul-de-sac, nor is the Project adjacent to an existing cul-de-sac.

The Project does not require placement of transit furniture in accordance with the City's Coordinated Street Furniture and Bus Bench Program.

Plan for a Healthy LA

Plan for a Healthy Los Angeles: A Health and Wellness Element of the General Plan (Los Angeles Department of City Planning, March 2015) introduces guidelines for the City to follow to enhance the City's position as a regional leader in health and equity, encourage healthy design and equitable access, and increase awareness of equity and environmental issues.

The Project prioritizes safety and access for all individuals utilizing the site and, thus, does not interfere with any of the policies recommended by the plan.

Land Use Element of the General Plan (35 Community Plans)

The City General Plan's Land Use Element contains 35 Community Plans that establish specific goals and strategies for the various neighborhoods across Los Angeles. The Project Site is in the South Park neighborhood within the Central City Community Plan (Community Plan) that was last updated in Year 2016.

The Project aligns with each of the goals and policies of multi-family residential land uses within the Community Plan, promoting the development of residential units in South Park. Further, the Project is reflective of the multi-family residential design guidelines contained in the Community Plan.

Specific Plans

Redevelopment Plan. As defined in *Redevelopment Plan for the City Center Redevelopment Project* (The Community Redevelopment Agency of the City of Los Angeles, California, May 2002), the Project is located in the South Park Development Area within the City Center Redevelopment Project (Redevelopment Plan) boundaries as designated by the CRA/LA, a Designated Local Authority and successor for the former Community Redevelopment Agency of the City of Los Angeles. The Redevelopment Plan was adopted in May 2002 and contains portions of the former *Redevelopment Plan for the Central Business District Redevelopment Project* (The Community Redevelopment Agency of the City of Los Angeles, California, July 1975). The Redevelopment Plan includes goals such as:

- *Eliminate and prevent spread of blight and deterioration*
- *Further the development of Downtown as the major center of the Los Angeles metropolitan region*
- *Promote the development and rehabilitation of economic enterprises; create a modern, efficient and balanced urban environment for people*
- *Provide high and medium density housing close to employment and available to all ethnic, social and economic groups*

The Project ensures compliance with the Redevelopment Plan by providing housing in a development area aiming to achieve a mixed-use live/work community.

Draft Downtown Los Angeles Community Plan (DTLA 2040). DTLA 2040 (LADCP, 2019) is a combined update to the Central City and Central City North Community Plans. The purpose of DTLA 2040 is to create and implement a vision of the future for downtown Los Angeles. According to regional projections, by Year 2040, downtown Los Angeles will be adding approximately 125,000 people, 70,000 housing units, and 55,000 jobs[3]. Per DTLA 2040, the following "core principles" represent the long-term priorities of the plan:

- *Accommodate anticipated growth through Year 2040 in an inclusive, equitable, sustainable, and healthy manner, while supporting and sustaining Downtown's ongoing revitalization*
- *Reinforce Downtown's jobs orientation*
- *Grow and support the residential base*
- *Strengthen neighborhood character*
- *Promote a transit-, bicycle-, and pedestrian-friendly environment*
- *Create linkages between districts*
- *Create a world-class streets and public realm*

DTLA 2040 is currently a draft document undergoing refinement and has not yet been adopted. The Project's provision of residential units, ground floor retail and restaurant space, bicycle parking and support facilities, and pedestrian amenities all support the priorities of DTLA 2040.

Los Angeles Municipal Code (LAMC) Section 12.21.A.16

LAMC Section 12.21.A.16 details the bicycle parking requirements for new developments. However, new bicycle parking requirements have been developed by the City and the Project would follow the new requirements set out in Case No. CPC-2016-4216-CA and Council File No.

[3]Updates for DTLA 2040 are based on information provided at http://www.planning.lacity.org/ (accessed on November 11, 2019).

12-1297-S1. Per the updated LAMC, the Project's proposed 1,249 dwelling units would require a total of 45 short-term and 462 long-term bicycle parking spaces and the retail and restaurant space would require nine additional short-term and nine additional long-term spaces.

The Project's proposed 54 short-term and 471 long-term bicycle spaces meet the LAMC requirements for on-site parking supply.

LAMC Section 12.22.A.31

LAMC Section 12.22.A.31 contains the Transit Oriented Communities (TOC) Affordable Housing Incentive Program, which was created to incentivize affordable housing development near transit stations. Incentives are based on the Project's distance from the various modes of transit. The Project Site is located within 0.25 miles of the Metro Pico Station, which provides service to the Metro Blue Line and Metro Expo Line. Thus, the Project is in an identified Tier 3 (High) TOC.

LAMC Section 12.26J

LAMC Section 12.26J, the TDM Ordinance (1993), establishes requirements for non-residential projects. This policy does not apply to the Project as the Project proposes residential land use with less than 25,000 sf of non-residential space.

LAMC Section 12.37

LAMC Section 12.37 includes the Waivers of Dedications and Improvement. The Project does not include additions or new construction along a street designated as a Boulevard I, and II, and/or Avenue I, II, or III on property zoned for R3 or less restrictive zone.

Vision Zero Action Plan

The primary goal of Vision Zero is to eliminate traffic deaths in the City of Los Angeles by 2025. The Project area is not included in the 2017 or 2018 Vision Zero Action Plans.

Vision Zero Corridor Plans

Vision Zero implements projects that are designed to increase safety on the most vulnerable City streets. The City has identified a number of streets as part of the High Injury Network where City projects will be targeted. The Project Site is located along Olive Street, which is identified in the City's High Injury Network between 12th Street and Pico Boulevard; however, no specific projects have been implemented at this time. 11th Street is not identified as part of the High Injury Network.

Citywide Design Guidelines for Residential, Commercial, and Industrial Development

Citywide Design Guidelines (Los Angeles City Planning Urban Design Studio, October 2019) incorporates urban design principles pertaining to pedestrian-first design which serves to reduce VMT.

The Project Site does not introduce a new driveway along an Avenue or Boulevard and utilizes the Margo Alley and Site 3 Alley for vehicular access and loading. The Project also maintains existing alleys, such as Margo Alley and the Site 3 Alley, with appropriate lighting and other design features.

The Project Site does include a corner lot; however, the driveways are proposed to be oriented as far from the adjacent intersection of Olive Street & 11th Street (Intersection #1) as possible.

Walkability Checklist

City of Los Angeles Walkability Checklist – Guidance for Entitlement Review (City of Los Angeles Department of City Planning, November 2008) serves as a guide for creating improved conditions for pedestrians to travel and contribute to the overall walkability of the City and includes the following topics:

- Sidewalks
- Crosswalks/Street Crossings
- On-Street Parking
- Utilities
- Building Orientation
- Off-Street Parking and Driveways
- On-Site Landscaping
- Building Façade
- Building Signage and Lighting

The Project incorporates many of the recommended strategies applicable to residential developments, including but not limited to providing continuous and adequate sidewalks along the Project, designing direct primary entrances for pedestrians to be visible and ADA accessible, and locating parking behind the building rather than exposed to the adjacent major street.

LADOT Transportation Technology Strategy – Urban Mobility in a Digital Age

The LADOT transportation technology strategy, based on *Urban Mobility in a Digital Age: A Transportation Technology Strategy for Los Angeles* (Ashley Z. Hand, August 2016), is designed to ensure the City stays on top of emerging transportation technologies as both a regulator and a transportation service provider. This strategy document includes the following goals:

- Data as a Service: Providing and receiving real-time data to improve the City's ability to serve transportation needs

- Mobility as a Service: Improving the experience of mobility consumers by encouraging partnerships across different modes and fostering clear communication between transportation service providers

- Infrastructure as a Service: Re-thinking how the City pays for, maintains, and operates public, physical infrastructure to provide more transparency

The Project does not interfere with any of the general policy recommendations and/or pilot proposals set forth by this document.

Mobility Hub Reader's Guide

Mobility Hubs: A Reader's Guide (LADCP, 2016) provides guidance for enhancing transportation connections and multi-modal improvements in proximity to new or existing transit stations.

The Project adopts several of these components, including LAMC-required short-term and long-term bicycle parking that both facilitates and encourages bicycling in and around the Project. Additionally, the Project proposes active uses that support a vibrant and mixed-use environment including a retail land use component.

LADOT Manual of Policies and Procedures (Design Standards)

Manual of Policies and Procedures (LADOT, December 2008) provides plans and requirements for traffic infrastructure features in the City. The Project does not interfere with any of the policies and procedures contained in this document. Additionally, the Project complies with all applicable LADOT design standards.

2016-2040 Regional Transportation Plan/Sustainable Communities Strategy

In April 2016, the Southern California Association of Governments (SCAG) adopted *The 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS). The RTP/SCS presents a long-term vision for the region's transportation system through Year 2040 and identifies mobility, accessibility, sustainability, and high quality of life as the principles most critical to the future of the region. Furthermore, it balances the region's future mobility and housing needs with economic, environmental, and public health goals.

As stated in the RTP/SCS, SB 375 requires SCAG and other Metropolitan Planning Organizations throughout the state to develop a Sustainable Communities Strategy to reduce per capita GHG emissions through integrated transportation, land use, housing, and environmental planning. Within the RTP/SCS, the strategy includes plans for High Quality Transit Areas (HQTA), Livable Corridors, and Neighborhood Mobility Areas as "key features of a thoughtfully planned, maturing region in which people benefit from increased mobility, more active lifestyles, increased economic opportunity, and an overall higher quality of life." HQTAs are described as generally walkable transit villages or corridors that are within 0.5 miles of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours. Local jurisdictions are encouraged to focus housing and employment growth within HQTAs.

The Project Site is located within an HQTA and Transit Priority Area as designated by the RTP/SCS, due to its proximity (0.25 miles) from the Metro Pico Station. The Project Site is well served by public transit with frequency of service intervals of 15 minutes or less during commuter peak periods. The proposed Project would provide residents and visitors with convenient access to public transit and opportunities for walking and biking. The location of the Project encourages a variety of transportation options and access and is, therefore, consistent with the RTP/SCS goal of maximizing mobility and accessibility for all people and goods in the region. The Project would also contribute to the productivity and use of the regional transportation system by providing housing near transit and encourage active transportation by providing new bicycle parking infrastructure and active street frontages, consistent with RTP/SCS goals.

CONSISTENCY

The Project is consistent with the City documents listed in Table 2.1-1 of the TAG along with the described documents above; therefore, the Project would not result in a significant impact under Threshold T-1.

Section 3B: Threshold T-2.1
Causing Substantial VMT Analysis

Threshold T-2.1 states that a residential project would result in a significant VMT impact if it would generate household VMT per capita exceeding 15% below the existing average household VMT per capita for the Area Planning Commission (APC) area in which a project is located. Similarly, a commercial project would result in a significant VMT impact if it would generate work VMT per employee exceeding 15% below the existing average work VMT per employee for the APC area in which the project is located.

The VMT analysis presented below was conducted in accordance with the TAG, which satisfies State requirements under SB 743.

VMT METHODOLOGY

LADOT developed *City of Los Angeles VMT Calculator Version 1.2* (November 2019) (VMT Calculator) to estimate project-specific daily household VMT per capita and daily work VMT per employee for developments within City limits, which are based on the following types of one-way trips:

- Home-Based Work Production: trips to a workplace destination originating from a residential use at the Project Site
- Home-Based Other Production: trips to a non-workplace destination (e.g., retail, restaurant, etc.) originating from a residential use at the Project Site
- Home-Based Work Attraction: trips to a workplace destination at the Project Site originating from a residential use

As detailed in *City of Los Angeles VMT Calculator Documentation* (LADOT and LADCP, November 2019), the household VMT per capita threshold applies to home-based work production and home-based other production trips, and the work VMT per employee threshold applies to home-based work attraction trips, as the location and characteristics of residences and workplaces are often the main drivers of VMT, as detailed in Appendix 1 of *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Governor's Office of Planning and Research, December 2018).

Table 2.2-1 of the TAG details the following daily household VMT per capita and daily work VMT per employee impact criteria for the APC areas:

APC	Daily Household VMT per Capita	Daily Work VMT per Employee
Central	6.0	7.6
East LA	7.2	12.7
Harbor	9.2	12.3
North Valley	9.2	15.0
South LA	6.0	11.6
South Valley	9.4	11.6
West LA	7.4	11.1

Source: TAG (LADOT, July 2019)

Other types of trips generated by the Project include Non-Home-Based Other Production (trips to a non-residential destination originating from a non-residential use at the Project Site), Home-Based Other Attraction (trips to a non-workplace destination at the Project Site originating from a residential use), and Non-Home-Based Other Attraction (trips to a non-residential destination at the Project Site originating from a non-residential use). These trip types are not factored into the VMT per capita and VMT per employee thresholds as those trips are typically localized and are assumed to have a negligible effect on the VMT impact assessment. However, those trips were factored into the calculation of total Project VMT for screening purposes when determining that VMT analysis for the Project would be required.

Travel Behavior Zone (TBZ)

The City developed TBZ categories to determine the magnitude of VMT and vehicle trip reductions that could be achieved through TDM strategies. As detailed in *City of Los Angeles*

VMT Calculator Documentation, the development of the TBZs considered the population density, land use density, intersection density, and proximity to transit of each Census tract in the City and are categorized as follows:

1. *Suburban (Zone 1): Very low-density primarily centered around single-family homes and minimally connected street network.*
2. *Suburban Center (Zone 2): Low-density developments with a mix of residential and commercial uses with larger blocks and lower intersection density.*
3. *Compact Infill (Zone 3): Higher density neighborhoods that include multi-story buildings and well-connected streets.*
4. *Urban (Zone 4): High-density neighborhoods characterized by multi-story buildings with a dense road network.*

The VMT Calculator determines a Project's TBZ based on the latitude and longitude of the project address.

Mixed-Use Development Methodology

As detailed in *City of Los Angeles VMT Calculator Documentation*, the VMT Calculator accounts for the interaction of land uses within a mixed-use development and considers the following sociodemographic, land use, and built environment factors for the Project area:

- The project's jobs/housing balance
- Land use density of the project
- Transportation network connectivity
- Availability of and proximity to transit
- Proximity to retail and other destinations
- Vehicle ownership rates
- Household size

VMT

The VMT Calculator determines a Project's VMT based on trip length information from the City's Travel Demand Forecasting (TDF) Model. The TDF Model considers the traffic analysis zone where the project is located to determine the trip length and trip type, which factor into the calculation of the project's VMT.

Population and Employment Assumptions

As previously stated, the VMT thresholds identified in the TAG are based on household VMT per capita and work VMT per employee. Thus, the VMT Calculator contains population assumptions developed based on Census data for the City and employment assumptions derived from multiple data sources, including *2012 Developer Fee Justification Study* (Los Angeles Unified School District, 2012), the San Diego Association of Governments Activity Based Model, *Trip Generation, 9th Edition* (Institute of Transportation Engineers, 2012), the US Department of Energy, and other modeling resources. A summary of population and employment assumptions for various land uses is provided in Table 1 of *City of Los Angeles VMT Calculator Documentation.*

TDM Measures

Additionally, the VMT Calculator measures the reduction in VMT resulting from a project's incorporation of TDM strategies as project design features or mitigation measures. The following seven categories of TDM strategies are included in the VMT Calculator:

1. Parking
2. Transit
3. Education and Encouragement
4. Commute Trip Reductions
5. Shared Mobility
6. Bicycle Infrastructure
7. Neighborhood Enhancement

TDM strategies within each of these categories have been empirically demonstrated to reduce trip-making or mode choice in such a way as to reduce VMT, as documented in *Quantifying Greenhouse Gas Mitigation Measures* (California Air Pollution Control Officers Association, 2010).

PROJECT VMT ANALYSIS

The VMT Calculator was used to evaluate Project VMT for comparison to the VMT impact criteria. Based on guidance from LADOT, the VMT Calculator was modeled for Phase 2 (Full Buildout) (1,249-unit multi-family housing land use, 8,715 sf of restaurant use, and 8,715 sf of retail use) to evaluate full Project buildout conditions. In addition, preliminary evaluations determined that utilizing the address for Phase 2 (Full Buildout) (1120 S. Olive Street) generated greater household VMT per capita than the Phase 1 address (1105 S. Olive Street). Therefore, the Phase 2 (Full Buildout) address (1120 S. Olive Street) was utilized in the VMT analysis to provide a more conservative analysis.

The VMT Calculator was set up with the Phase 2 (Full Buildout) land use program and the respective sizes as the primary input. Based on the Phase 2 (Full Buildout) proposed land uses and location, the following assumptions were identified in the VMT Calculator:

- Total Population: 2,814
- Total Employees: 52
- APC: Central
    - Household VMT Impact Threshold: 6.0 VMT per capita
    - Work VMT Impact Threshold: 7.6 VMT per employee
- TBZ: Compact Infill
    - Maximum VMT Reduction: 40%

The VMT analysis results based on the VMT Calculator are summarized in Table 5. Detailed output from the VMT Calculator is provided in Appendix D.

Project VMT

As shown in Table 5, based on the VMT Calculator, Phase 2 (Full Buildout) is estimated to generate a daily VMT of 21,172. The Project is expected to generate an average household VMT per capita of 4.6. The household VMT per capita of 4.6 is more than 15% below the Central APC impact threshold of 6.0 and, therefore, would not result in a significant household VMT impact. The TAG provides that small scale or local-serving retail uses are assumed to have less than significant VMT impacts. In addition, per *City of Los Angeles VMT Calculator User Guide* (LADOT and LADCP, November 2019), work VMT per employee is not reported for projects in which the only commercial use is retail, since retail VMT impacts are not addressed by the calculator. Therefore, the Project is not expected to generate any work VMT per employee and would not result in a significant work VMT impact. Because the Project would not result in a significant household or work VMT impact, mitigation measures would not be required.

The detailed output from the VMT Calculator is provided in the Appendix D.

CUMULATIVE ANALYSIS

Long-term, or cumulative, effects were determined based on the Project's consistency with the SCAG RTP/SCS, per the TAG. Projects that are consistent with the SCAG RTP/SCS would be part of the regional solution for meeting air pollution and GHG goals and would have a less than significant cumulative impact on VMT. As discussed in Section 3A, the Project is consistent with the goals and policies of the SCAG RTP/SCS. Thus, the Project would not result in a cumulative impact under Threshold T-2.1, and no further evaluation or mitigation measures would be required.

TABLE 5
VMT ANALYSIS SUMMARY

Project Information	Phase 2 (Full Buildout)
Address	1120 S Olive St
Project Land Uses	**Size**
Multi-Family Housing	1,249 units
Restaurant	8,715 sf
Retail	8,715 sf
Project Analysis [a]	
Resident Population	2,814
Employee Population	52
Project Area Planning Commission	Central
Daily Vehicle Trips	4,042
Daily VMT	21,477
Household VMT per Capita [b]	4.7
Impact Threshold	6.0
Significant Impact	NO
Work VMT per Employee [c]	N/A
Impact Threshold	7.6
Significant Impact	NO

Notes:
[a] Project Analysis is from VMT Calculator output reports provided in Appendix D.
[b] Based on home-based production trips only (see Appendix D, Report 4).
[c] Based on home-based work attraction trips only (see Appendix D, Report 4). Per *City of Los Angeles VMT Calculator User Guide* (LADOT and LADCP, November 2019), work VMT per employee is not reported for projects in which the only commercial use is retail, since retail VMT impacts are not addressed by the VMT Calculator.

Section 3C: Threshold T-2.2
Substantially Inducing Additional Automobile Travel Analysis

The intent of Threshold T-2.2 is to assess whether a transportation project would induce substantial VMT, such as the addition of through traffic lanes on existing or new highways, including general purpose lanes, high-occupancy vehicle lanes, peak period lanes, auxiliary lanes, and lanes through grade-separated interchanges.

The Project does not propose a transportation project that would induce automobile travel. Therefore, further evaluation will not be required, and the Project would not result in a significant impact under Threshold T-2.2.

Section 3D: Threshold T-3

Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use Analysis

Further evaluation is required for projects that propose new access points or modifications along the public right-of-way (i.e., street dedications) under Threshold T-3. A review of Project access points, internal circulation, and parking access would determine if the Project would substantially increase hazards due to geometric design features, including safety, operational, or capacity impacts. Vehicular access to the Project Sites would be provided via existing curb cuts. However, street dedications on Olive Street along the Project frontage would be required to meet City standards.

The proposed driveways for the Project are located in the general area of existing driveways on Olive Street that serve the current land uses. The existing driveways off Margo Street and 11th Street and the Site 3 alleyway and 11th Street would not be modified. No additional access points or excessive driveway widening are proposed. No unusual or new obstacles are presented in the design that would be considered hazardous to motorized vehicles, bicycles and other non-motorized vehicles, or pedestrians. The driveway designs do not present significant safety issues regarding traffic/pedestrian conflicts. The driveways will be designed according to LADOT standards and will be reviewed by the City Bureau of Engineering during site plan review.

The section of Olive Street along which the driveways for Site 2 and Site 3 are located is constructed with three northbound travel lanes, consistent with its Mobility Plan designation. No exceptional horizonal or vertical curvatures exist along this section of roadway that would create sight distance issues for traffic utilizing the driveway. Parking is allowed on the west side of the road in front of Site 2 and on the east side of the road in front of Site 3 but is adequately set-back from the driveway opening by red-curb, further enhancing available sight distance.

Based on the site plan review and design assumptions, the Project does not present any geometric design hazards as it relates to traffic movement, mobility, or pedestrian accessibility, and is considered less than significant.

Chapter 4
Non-CEQA Transportation Analysis

This chapter summarizes the non-CEQA transportation analysis of the Project. It includes Project traffic, the expected access, safety, and circulation operations of the Project, and the nearby pedestrian, bicycle, and transit facilities. This chapter also summarizes the evaluation of the Project's operational conditions, parking supply and requirements, and effects due to Project construction.

NON-CEQA TRANSPORTATION ANALYSIS METHODOLOGY

The non-CEQA transportation analysis includes an assessment of the Project's potential effect on (i) pedestrian, bicycle, and transit facilities, (ii) Project access, safety, and circulation evaluation, and (iii) Project construction. Intersection operations were evaluated for typical weekday morning (7:00 AM to 10:00 AM) and afternoon (3:00 PM to 6:00 PM) peak periods. A total of five signalized intersections in the vicinity of the Project Sites within the City were selected for detailed transportation analysis and are shown in Figure 2.

The following traffic conditions were developed and analyzed as part of this study:

- <u>Existing with Project – Phase 1 Conditions</u>: This analysis condition projects the potential intersection operating conditions that could be expected if Phase 1 were built under existing conditions.

- <u>Existing with Project – Phase 2 (Full Buildout) Conditions</u>: This analysis condition projects the potential intersection operating conditions that could be expected if Full Buildout of the Project were built under existing conditions.

- <u>Future with Project – Phase 1 Conditions (Year 2024)</u>: This analysis condition projects the potential intersection operating conditions that could be expected if Phase 1 were occupied in the projected buildout year. In this analysis, the Phase 1 Project-generated traffic is added to Future without Project Conditions (Year 2024).

- Future with Project – Phase 2 (Full Buildout) Conditions (Year 2026): This analysis condition projects the potential intersection operating conditions that could be expected if Full Buildout were occupied in the projected buildout year. In this analysis, the Full Buildout Project-generated traffic is added to Future without Project Conditions (Year 2026).

Operational Evaluation

In accordance with the TAG, the intersection delay and queue analyses for the operational evaluation were conducted using the *Highway Capacity Manual, 6th Edition* (Transportation Research Board, 2016) (HCM) methodology, which was implemented using Synchro software and signal timing worksheets from the City to analyze intersection operating conditions. The HCM signalized methodology calculates the average delay, in seconds, for each vehicle passing through the intersections. Table 6 presents a description of the LOS categories, which range from excellent, nearly free-flow traffic at LOS A, to stop-and-go conditions at LOS F, for signalized intersections. The queue lengths were estimated using Synchro, which reports the 85th percentile queue length, in feet, for each approach lane. The reported queues are calculated using the HCM signalized and unsignalized intersection methodology.

LOS and queuing worksheets for each scenario are provided in Appendix C.

Section 4A
Project Traffic

Trip generation estimates, trip distribution patterns and trip assignments were prepared for the proposed Project. These components form the basis of the Project's traffic analysis.

PROJECT TRIP GENERATION

The number of trips expected to be generated by the retail and restaurant components of the Project was estimated using rates published in *Trip Generation, 10th Edition.* These rates are based on surveys of similar land uses at sites around the country and are provided as both daily rates and morning and afternoon peak hour rates. They relate the number of vehicle trips traveling to and from the Project Sites to the size of development of each land use. The number of trips expected to be generated by the residential component of the Project was estimated based on local trip generation rates developed by LADOT for multi-family mid-rise and high-rise residential land uses in dense multi-use urban areas, as provided in Table 3.3-1 of the TAG.

Appropriate trip generation reductions to account for public transit usage, internal capture, and pass-by trips were made in consultation with LADOT. A 10% transit/walk-in adjustment was made to Project trips in accordance with the TAG for a development within walking distance of multiple public transit options. The restaurant and retail trip generation estimates were also reduced by 20% and 50%, respectively (as allowed in the TAG), to account for the estimated trips made by drivers already passing by the Project Sites and stopping on their way to another destination. The NCHRP 8-51 Internal Trip Capture Estimation Tool (*National Cooperative Highway Research Program Report 684 – Enhancing Internal Trip Capture Estimation for Mixed-Use Developments*, Transportation Research Board and National Research Council, 2011) was used to calculate internal capture to account for person trips made by residents to the restaurant and shops, as is common within a mixed-use development.

As shown in Table 7, after accounting for the adjustments above, Phase 1 is estimated to generate 137 morning peak hour trips (40 inbound, 97 outbound) and 170 afternoon peak hour trips (105 inbound, 65 outbound) on a typical weekday. Phase 2 (Full Buildout) is expected to generate 329 morning peak hour trips (97 inbound trips, 232 outbound trips) and 405 afternoon peak hour trips (251 inbound trips, 154 outbound trips) on a typical weekday.

PROJECT TRIP DISTRIBUTION

Similar to the trip distribution of traffic for the Related Projects described in Chapter 2, the geographic distribution of trips generated by the Project is dependent on the location of employment, residential, and commercial centers to and from which patrons of the Project would be drawn, characteristics of the street system serving the Project site, the location of the Project driveway, and existing traffic conditions.

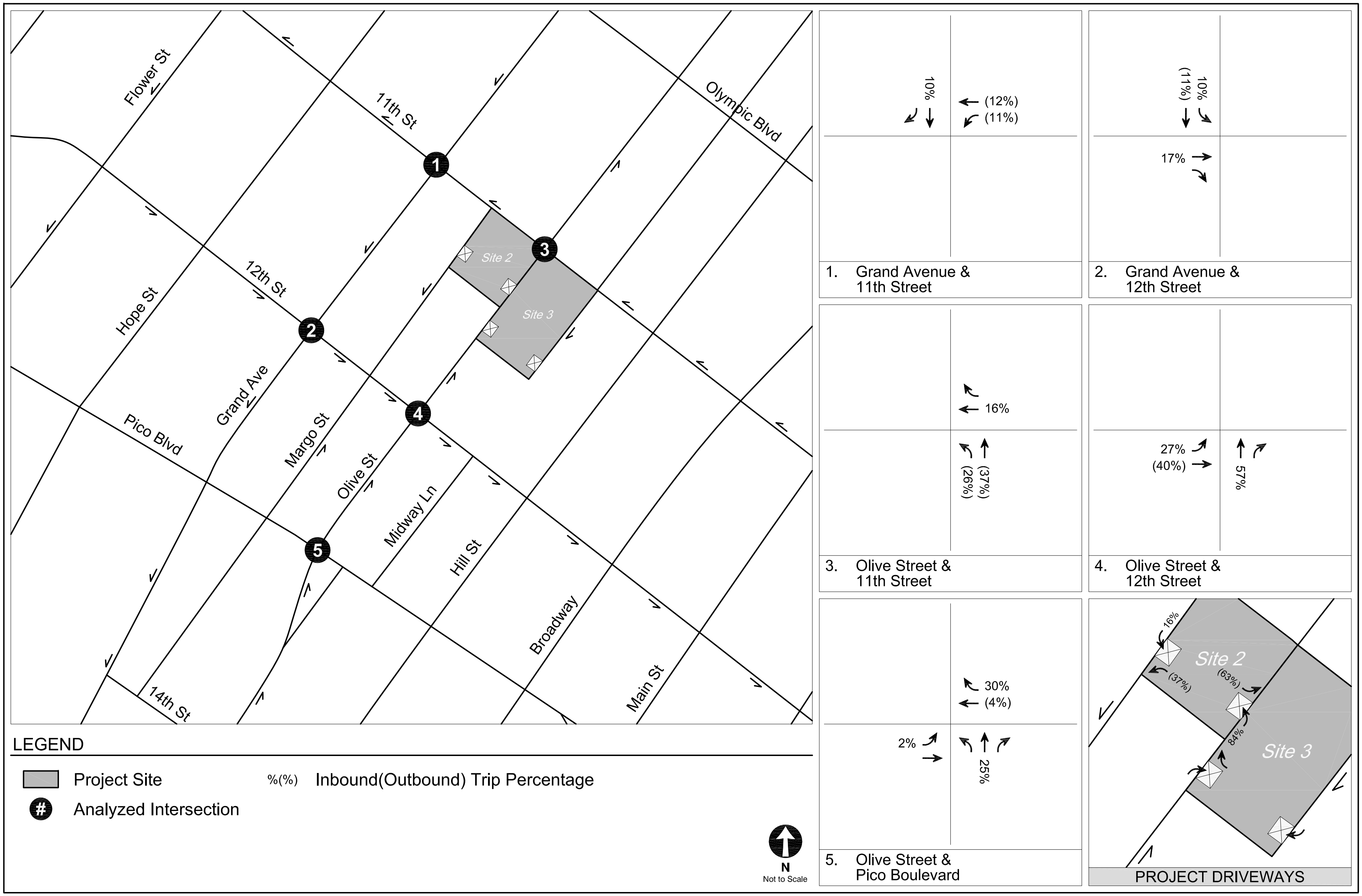
Based on these considerations, traffic entering and exiting the Project was assigned to the surrounding street system. The intersection-level trip distribution pattern for Project traffic at the study intersections is shown in Figure 12A and 12B.

Generally, the pattern is as follows:

- 24% to/from the north
- 22% to/from the east
- 21% to/from the south
- 29% to/from the west

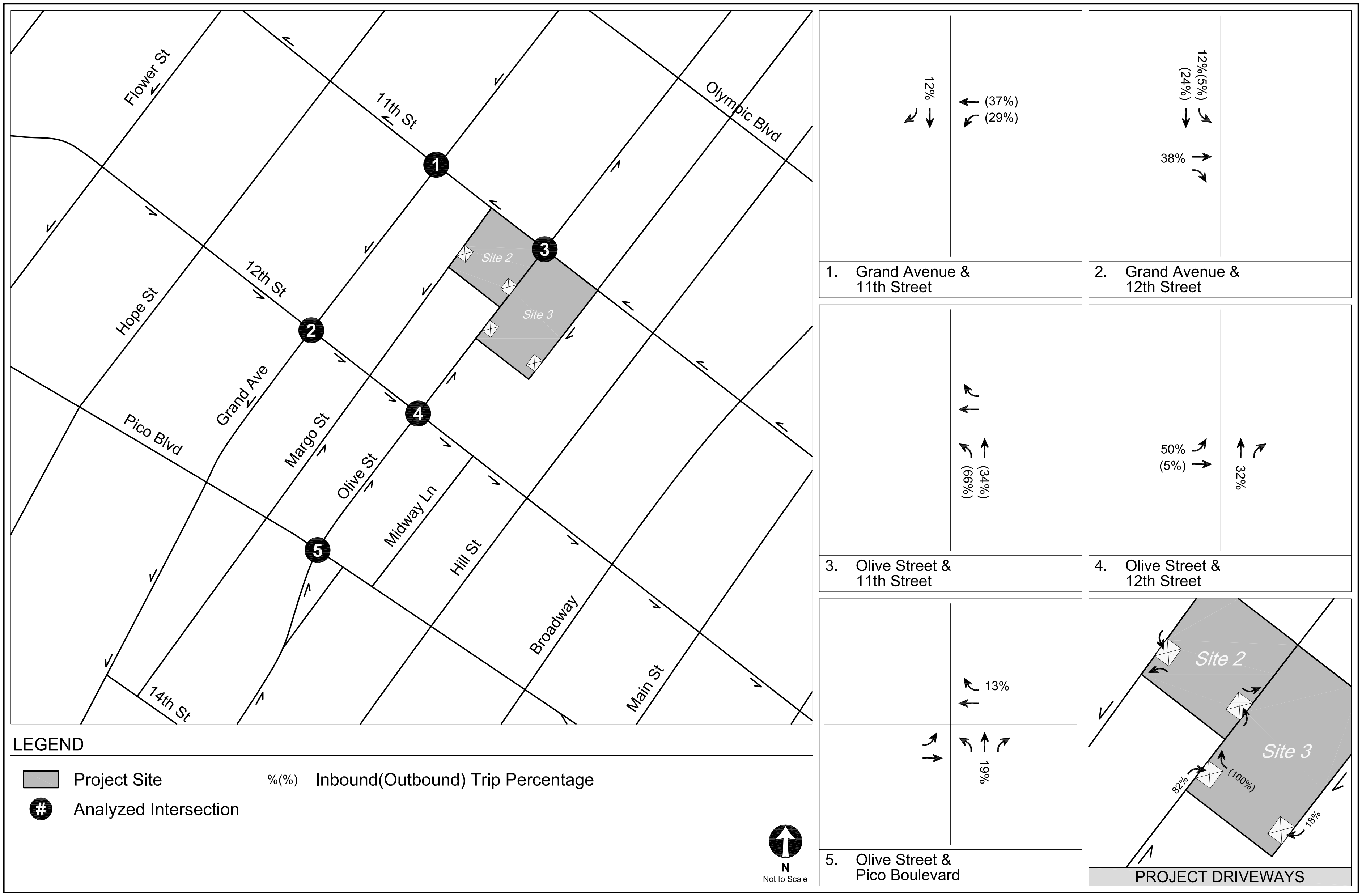
PROJECT TRIP ASSIGNMENT

The Project trip generation estimates summarized in Table 7 and the trip distribution pattern shown in Figure 12A and 12B were used to assign the Project-generated traffic through the study intersections. Figure 13A and 13B illustrate the net Project-only traffic volumes for Phase 1 and Phase 2 (Full Buildout), respectively, at the study intersections during typical weekday morning and afternoon peak hours.



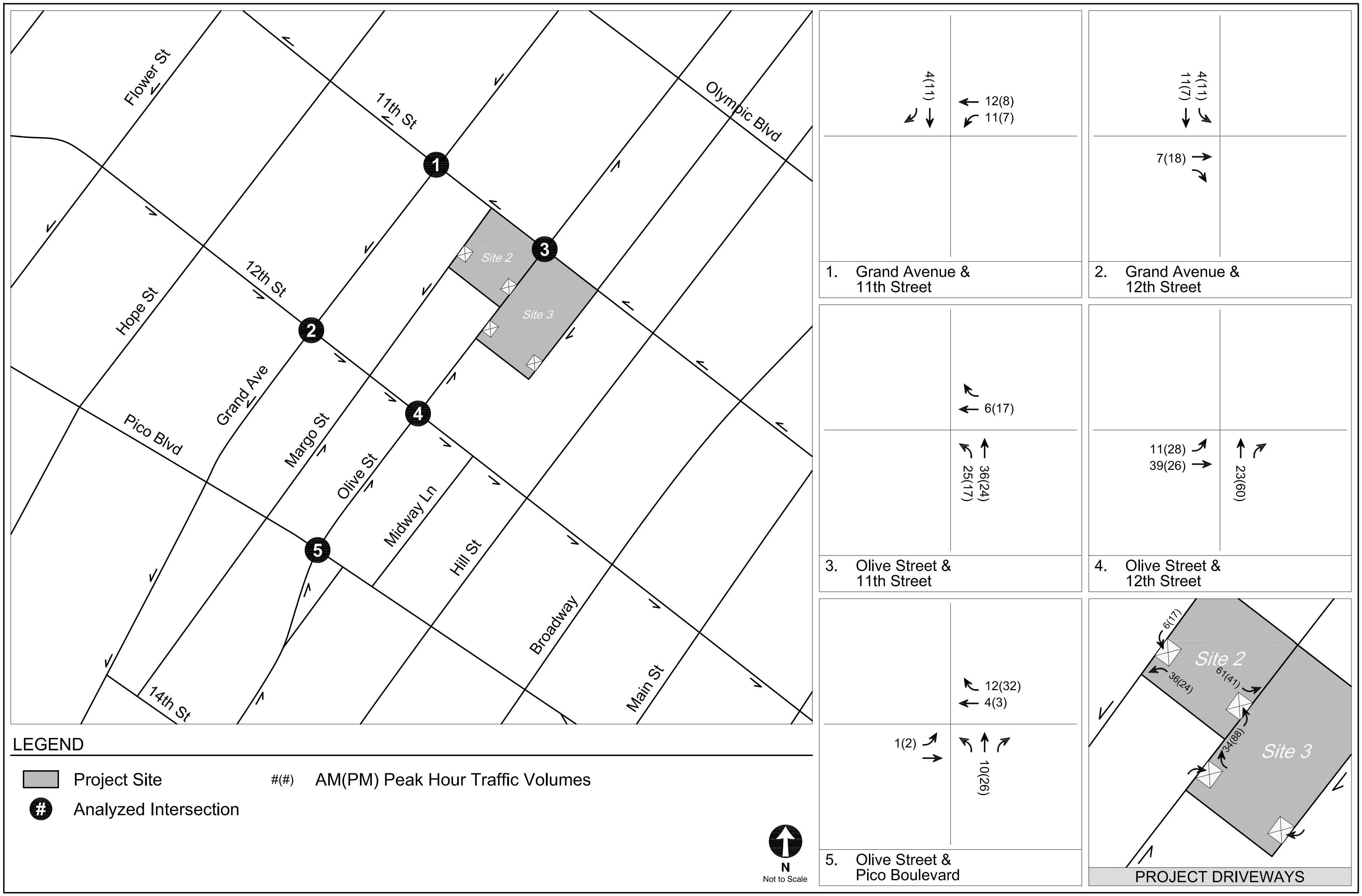
PROJECT TRIP DISTRIBUTION
SITE 2

FIGURE 12A



PROJECT TRIP DISTRIBUTION
SITE 3

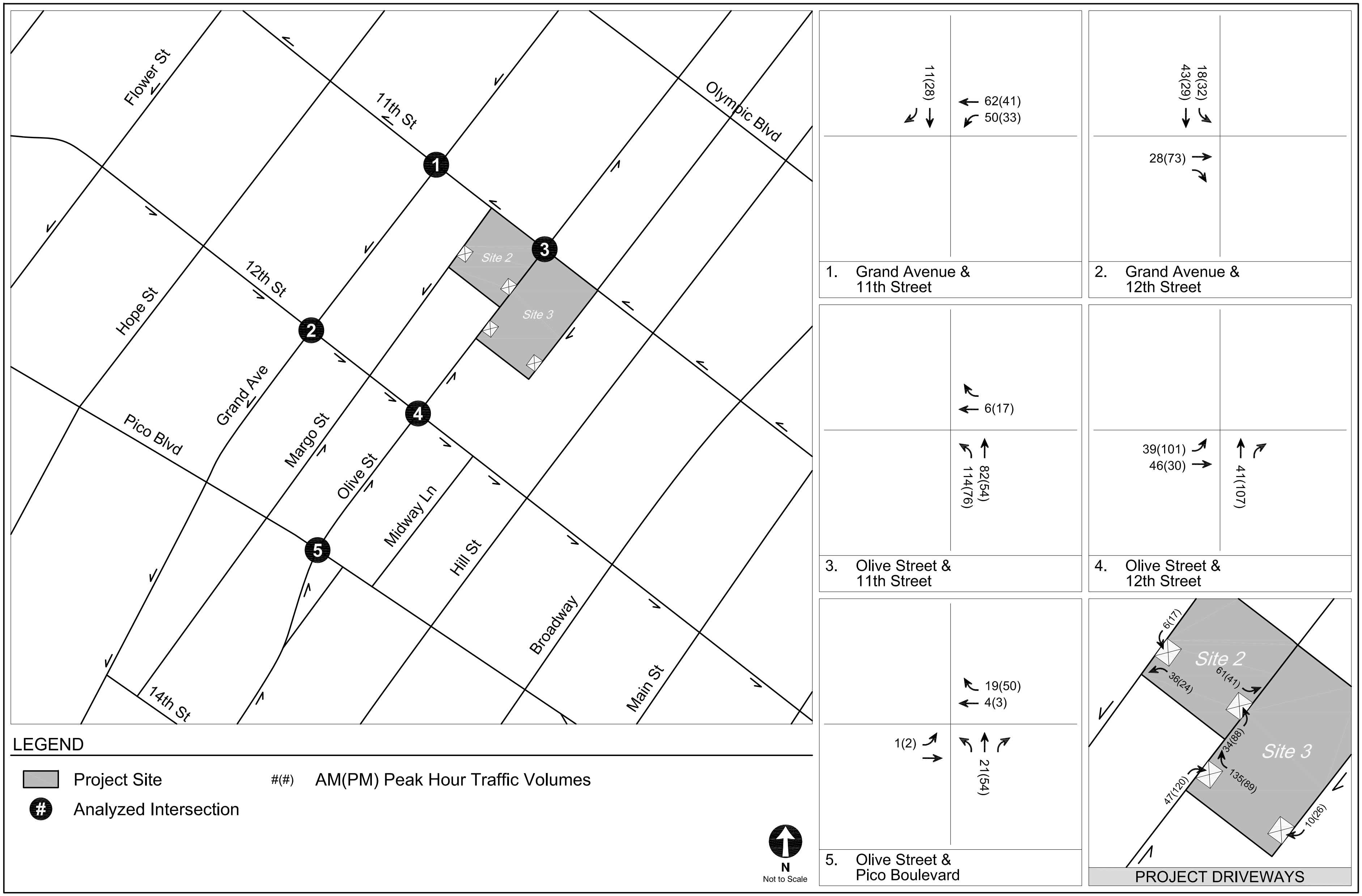
FIGURE
12B



PROJECT-ONLY PEAK HOUR TRAFFIC VOLUMES
SITE 2

FIGURE
13A

Gibson transportation consulting, inc.



PROJECT-ONLY PEAK HOUR TRAFFIC VOLUMES
SITES 2 & 3

FIGURE
13B

TABLE 6
INTERSECTION LEVEL OF SERVICE

Level of Service	Description	Delay [a]
		Signalized Intersections
A	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.	≤ 10
B	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.	> 10 and ≤ 20
C	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.	> 20 and ≤ 35
D	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.	> 35 and ≤ 55
E	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.	> 55 and ≤ 80
F	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.	> 80

Notes
Source: *Highway Capacity Manual, 6th Edition* (Transportation Research Board, 2016).
[a] Measured in seconds.

TABLE 7
PROJECT TRIP GENERATION ESTIMATES

TRIP GENERATION RATES [a]									
Land Use	**ITE Land Use**	**Size**	**Daily**	**Morning Peak Hour**			**Afternoon Peak Hour**		
				Inbound	**Outbound**	**Total**	**Inbound**	**Outbound**	**Total**
Multifamily Housing (High-Rise) [b]	222	per du	4.45	24%	76%	0.23	61%	39%	0.30
Shopping Center	820	per ksf	37.75	62%	38%	0.94	48%	52%	3.81
High-Turnover (Sit-Down) Restaurant	932	per ksf	112.18	55%	45%	9.94	62%	38%	9.77
MIXED USE INTERNAL CAPTURE CREDIT [d]									
Residential			5%	3%	5%		4%	6%	
Retail			35%	20%	0%		63%	53%	
Restaurant			22%	21%	5%		23%	44%	

TRIP GENERATION ESTIMATES									
Land Use	**ITE Land Use**	**Size**	**Daily**	**Morning Peak Hour**			**Afternoon Peak Hour**		
				Inbound	**Outbound**	**Total**	**Inbound**	**Outbound**	**Total**
Site 2 - SW Corner									
Multifamily Housing (High-Rise) [b]	222	536 du	2,385	30	93	123	98	63	161
Less Internal Capture - [d]			*(119)*	*(1)*	*(5)*	*(6)*	*(4)*	*(4)*	*(8)*
Subtotal - Residential			**2,266**	**29**	**88**	**117**	**94**	**59**	**153**
Shopping Center	826	3,076 sf	116	2	1	3	6	6	12
Less Walk-in/Transit Use - 10% [c]			*(12)*	*0*	*0*	*0*	*(1)*	*(1)*	*(1)*
Less Internal Capture - [d]			*(29)*	*0*	*0*	*0*	*(3)*	*(3)*	*(6)*
Less Pass By - 50% [e]			*(38)*	*(1)*	*(1)*	*(2)*	*(1)*	*(1)*	*(3)*
Subtotal - Shopping Center			**37**	**1**	**0**	**1**	**1**	**1**	**2**
Restaurant	932	3,077 sf	345	17	14	31	19	11	30
Less Walk-in/Transit Use - 10% [c]			*(35)*	*(2)*	*(1)*	*(3)*	*(2)*	*(1)*	*(3)*
Less Internal Capture - [d]			*(68)*	*(3)*	*(1)*	*(4)*	*(4)*	*(4)*	*(8)*
Less Pass By - 20% [e]			*(48)*	*(2)*	*(2)*	*(5)*	*(3)*	*(1)*	*(4)*
Subtotal - Restaurant			**194**	**10**	**9**	**19**	**10**	**5**	**15**
Site 2 Sub-Total [f]			**2,497**	**40**	**97**	**137**	**105**	**65**	**170**
Site 3 - SE Corner									
Multifamily Housing (High-Rise) [b]	222	713 du	3,173	39	125	164	131	83	214
Less Internal Capture - [d]			*(143)*	*(1)*	*(6)*	*(7)*	*(5)*	*(5)*	*(10)*
Subtotal - Residential			**3,030**	**38**	**119**	**157**	**126**	**78**	**204**
Shopping Center	826	5,638 sf	213	3	2	5	10	11	21
Less Walk-in/Transit Use - 10% [c]			*(21)*	*0*	*0*	*(1)*	*(1)*	*(1)*	*(2)*
Less Internal Capture - [d]			*(80)*	*(1)*	*0*	*(1)*	*(6)*	*(5)*	*(11)*
Less Pass By - 50% [e]			*(56)*	*(1)*	*(1)*	*(2)*	*(2)*	*(3)*	*(4)*
Subtotal - Shopping Center			**56**	**1**	**0**	**1**	**1**	**3**	**4**
Restaurant	932	5,639 sf	633	31	25	56	34	21	55
Less Walk-in/Transit Use - 10% [c]			*(63)*	*(3)*	*(3)*	*(6)*	*(3)*	*(2)*	*(6)*
Less Internal Capture - [d]			*(128)*	*(6)*	*(1)*	*(7)*	*(7)*	*(8)*	*(15)*
Less Pass By - 20% [e]			*(88)*	*(4)*	*(4)*	*(9)*	*(5)*	*(2)*	*(7)*
Subtotal - Restaurant			**354**	**18**	**16**	**34**	**19**	**8**	**27**
Site 3 Sub-Total [g]			**3,440**	**57**	**135**	**192**	**146**	**89**	**235**
Total Project Trips			**5,937**	**97**	**232**	**329**	**251**	**154**	**405**

Notes
1,000 square feet = ksf.
du: dwelling units
[a] Source: *Trip Generation, 10th Edition* , Institute of Transportation Engineers, 2017.
[b] The trip generation estimates for Multifamily Housing (High-Rise) were based on the Multi-family High-Rise Land Use in Dense Multi-Use Urban Areas per LADOT's *Transportation* Assessment Guidelines.
[c] Per LADOT's *Transportation Assessment Guidelines,* the Project Site is located within a 1/4 mile walking distance from a RapidBus stop, therefore a transit reduction is applied to account for transit usage and walking visitor arrivals from the surrounding neighborhoods and adjacent commercial developments.
[d] Internal capture adjustments account for person trips made between distinct land uses within a mixed-use development without using an off-site road system. Based on the NCHRP 8-51 Internal Trip Capture Estimation Tool (National Cooperative Highway Research Program Report 684 – Enhancing Internal Trip Capture Estimation for Mixed-Use Developments, Transportation Research Board and National Research Council, 2011), the Project trips can potentially be adjusted for over 25% internal capture adjustments.
[e] Pass-by adjustments account for Project trips made as an intermediate stop on the way from an origin to a primary trip destination without route diversion.
[f] Total commercial space of 6,153 sf on Site 2 assumed to be 50% retail and 50% restaurant.
[g] Total commercial space of 11,277 sf on Site 3 assumed to be 50% retail and 50% restaurant.

Section 4B
Project Access, Safety, and Circulation Assessment

This section summarizes the site access, safety, and circulation of the Project Site. It includes an evaluation of the expected access and circulation operations of the Project.

VEHICLES

This proposed circulation plan for the Project, illustrated in Figure 1A and 1B, includes main inbound and outbound access for the Project provided via driveways located on Olive Street and Margo Street for Site 2 and Olive Street and an alleyway between Olive Street and Hill Street for Site 3. The driveway on Margo Street would accommodate left-turn ingress and egress and the driveway on Olive Street would accommodate left-turn ingress and egress for Site 2. Additional truck and service vehicle access for Site 2 may be provided via the loading driveway along Margo Street. The driveways on Olive Street and the alleyway would accommodate right-turn ingress and egress for Site 3. Additional truck and service vehicle access for Site 3 may be provided via the loading driveway along the alleyway. The driveways would be constructed to meet the applicable City standards.

The vehicular access system is adequate to serve the site and no points of congestion are anticipated that would affect traffic flow on the adjacent public streets.

PEDESTRIANS AND BICYCLES

Pedestrian access to the Project would be provided along both Olive Street and 11th Street. The Project will be providing wider sidewalks, new street trees, and pedestrian lighting as part of its streetscape improvements. Both Sites 2 and 3 will feature 17-foot sidewalks on both sides of Olive Street along the Project frontages, and 15- to 16-foot sidewalks that comply with City standards on the south side of 11th Street along the Project frontages. The Project access locations would be designed to provide adequate sight distance, sidewalks, crosswalks, and pedestrian movement controls that meet the City's requirements to protect pedestrian safety. All roadways and driveways intersect at right angles and street trees and other potential impediments to adequate driver and pedestrian visibility would be minimal. Pedestrian entrances would provide access from the adjacent streets to parking facilities.

Visitors, residents and employees arriving by bicycle would have the same access opportunities as pedestrian visitors. Dedicated bicycle lanes currently exist on Olive Street, Grand Avenue, and 11th Street. In order to facilitate bicycle use, short-term and long-term bicycle parking spaces would be provided, consistent with LAMC Section 12.21 A16. Vehicular and pedestrian/bicyclist conflicts would be avoided with a visual and audible alarm located at vehicular exits to warn pedestrians and cyclists of exiting vehicles.

Section 4C
Pedestrian, Bicycle, and Transit Assessment

This section assesses the Project's potential effect on pedestrian, bicycle, and transit facilities in the vicinity of the Project Site.

Factors to consider when assessing a project's potential effect on pedestrian, bicycle, and transit facilities, include the following:

- Would the project directly or indirectly result in a permanent removal or modification that would lead to the degradation of pedestrian, bicycle, or transit facilities?
- Would a project intensify use of existing pedestrian, bicycle, or transit facilities?

PEDESTRIANS AND BICYCLES

The Project would not directly or indirectly result in a permanent removal or modification that would lead to the degradation of pedestrian or bicycle facilities. Although the Project may intensify use of existing pedestrian and bicycle facilities, the Project would provide adequate measures to ensure the safety of those accessing the site and utilizing the street system surrounding it. As noted in the previous section, the Project would be providing wider sidewalks along Project frontages on Olive Street and 11th Street, new street trees, pedestrian lighting, and vehicular exit alarms to warn pedestrians and bicyclists of exiting vehicles.

TRANSIT

As detailed in Chapter 2, the Study Area is served by numerous established transit routes. Both bus and Metro rail transit service operated by Metro, DASH, CE, Santa Monica Big Blue Bus, Foothill Transit, OCTA, Torrance Transit, Gardena Municipal Bus, and Montebello Transit are available as part of the public transit system in the vicinity of the Project Site.

Although the Project (and other Related Projects) will cumulatively add transit ridership, the Project Site, downtown Los Angeles, and the Study Area are served by a vast amount of transit service, as detailed in Tables 2 and 3. Based on Tables 3A and 3B, the total residual capacity of the bus and rail lines within the Study Area during the morning and afternoon peak hours is approximately 17,691 and 15,835 transit trips, respectively. The total Project morning and afternoon peak hour trips are projected at 336 and 405 trips, respectively, or approximately 0.3% of the total residual capacity of the transit lines within the Study Area during morning and afternoon peak. Overall, the total transit capacity along the routes of those lines can accommodate the Project's transit trips.

Section 4D
Operational Evaluation

This section provides a quantitative evaluation of the Project's access and circulation operations, including the anticipated LOS at the study intersections and anticipated traffic queues.

LOS ANALYSIS

The intersection analysis was conducted based on the HCM methodologies to identify delay and LOS at each of the study intersections with development of the Project. Detailed LOS calculation worksheets are provided in Appendix C.

Existing with Project Phase 1 Conditions

Traffic Volumes. The Phase 1 Project-only morning and afternoon peak hour traffic volumes described in Chapter 6 and shown in Figure 13A were added to the existing morning and afternoon peak hour traffic volumes shown in Figure 7. The resulting volumes are illustrated in Figure 14 and represent Existing with Project Phase 1 Conditions, assuming Project operation under Existing Conditions.

Intersection LOS. Table 8 summarizes the weekday morning and afternoon peak hour LOS results for each of the signalized study intersections under Existing and Existing with Project Phase 1 Conditions. As shown in Table 8, all five study intersections would continue to operate at LOS C or better during both the morning and afternoon peak hours under and Existing with Project Phase 1 Conditions.

Existing with Project Phase 2 (Full Buildout) Conditions

Traffic Volumes. The Phase 2 (Full Buildout) Project-only morning and afternoon peak hour traffic volumes described in Chapter 4 and shown in Figure 13B were added to the Existing morning and afternoon peak hour traffic volumes shown in Figure 7. The resulting volumes are illustrated in Figure 15 and represent Existing with Project Phase 2 (Full Buildout) Conditions, assuming Project operation under existing conditions.

Intersection LOS. Table 9 summarizes the results of the Existing and Existing with Project Phase 2 (Full Buildout) Conditions during the weekday morning and afternoon peak hours for the five study intersections. As shown in Table 9, all five study intersections are expected to continue to operate at LOS C or better during both the morning and afternoon peak hours under Existing with Project Full Buildout Conditions.

Future with Project Phase 1 Conditions

All future cumulative traffic growth (i.e., ambient and Cumulative Project traffic growth) and transportation infrastructure improvements described in Chapter 3 are incorporated into this analysis.

Traffic Volumes. The Phase 1 Project-only morning and afternoon peak hour traffic volumes described in Chapter 4 and shown in Figure 13A were added to the Future without Project (Year 2024) morning and afternoon peak hour traffic volumes shown in Figure 10. The resulting volumes are illustrated in Figure 16 and represent Future with Project Phase 1 Conditions after development of Phase 1 of the Project in Year 2024.

Intersection LOS. Table 10 summarizes the results of the Future without Project (Year 2024) and Future with Project Phase 1 Conditions during the weekday morning and afternoon peak hours for the five study intersections. As shown in Table 10, four of the five study intersections are expected to operate at LOS D or better during both the morning and afternoon peak hours under both Future without Project (Year 2024) and Future with Project Phase 1 Conditions. The remaining intersection Olive Street & 11th Street (Intersection #3) is expected to operate at LOS

D during the morning peak hour and at LOS E during the afternoon peak hour under both Future without Project (Year 2024) and Future with Project Phase 1 Conditions.

Future with Project Phase 2 (Full Buildout) Conditions

All future cumulative traffic growth (i.e., ambient and Related Project traffic growth) and transportation infrastructure improvements described in Chapter 4 are incorporated into this analysis.

Traffic Volumes. The Phase 2 (Full Buildout) Project-only morning and afternoon peak hour traffic volumes described in Chapter 4 and shown in Figure 13B were added to the Future without Project (Year 2026) morning and afternoon peak hour traffic volumes shown in Figure 11. The resulting volumes are illustrated in Figure 17 and represent Future with Project Phase 2 (Full Buildout) Conditions after development of the Project in Year 2026.

Intersection LOS. Table 11 summarizes the results of the Future without Project (Year 2026) and Future with Project Phase 2 (Full Buildout) Conditions during the weekday morning and afternoon peak hours for the five study intersections. Table 11 indicates that four of the five study intersections are expected to operate at LOS D or better during both the morning and afternoon peak hours under both Future without Project Phase 2 (Full Buildout) Conditions and Future with Project Phase 2 (Full Buildout) Conditions. The remaining intersection, Olive Street & 11th Street, is expected to operate at LOS D during the morning peak hour and at LOS E during the afternoon peak hour under Future without Project Phase 2 (Full Buildout) Conditions and at LOS E during both the morning and afternoon peak hours under Future with Project Phase 2 (Full Buildout) Conditions.

INTERSECTION QUEUING ANALYSIS

The four Project driveways and intersections immediate to the Project vicinity were analyzed to determine whether the lengths of intersection turning lanes were enough to accommodate vehicle queue lengths. The intersections include the four study intersections (Intersections #1 to #4) and one unsignalized intersection (Margo Street & 12th Street).

The queue lengths were estimated using Synchro software, which reports the 85th percentile queue length, in feet, for each approach lane. The reported queues are calculated using the HCM signalized and unsignalized intersection methodology.

Detailed queuing analysis worksheets are provided in Appendix C.

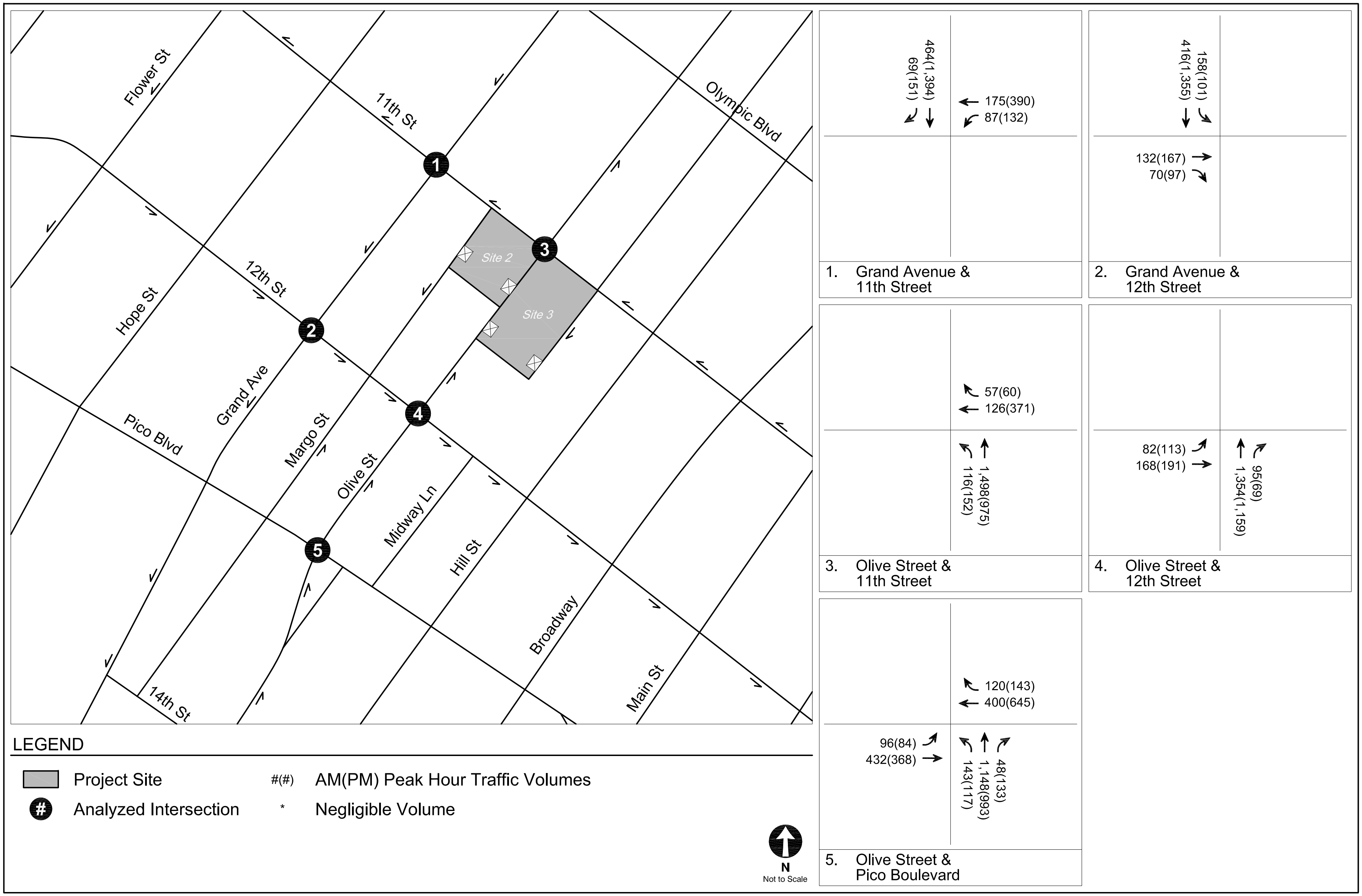
RECOMMENDED ACTIONS

Based on the queuing analysis, the intersection at Olive Street & 11th Street (Intersection #3) may experience queuing that extends beyond the Project driveways on Olive Street. Because the intersection is located adjacent to the Project, a significant amount of Project traffic exiting the Project driveways on Olive Street passes through this intersection. The extended queuing may be a result of the reduced roadway capacity and reconfiguration on 11th Street.

This intersection was recently reconfigured in the MyFigueroa Streetscape Project. 11th Street from Figueroa Street to Broadway was converted to one westbound bike lane and one westbound travel lane in the Year 2018 to provide a complete, multimodal street that better serves the needs of pedestrians, bicyclists, and transit riders while still accommodating drivers. The improvement added better signalization and signage, high-visibility crosswalks, transit platforms, and more street trees.

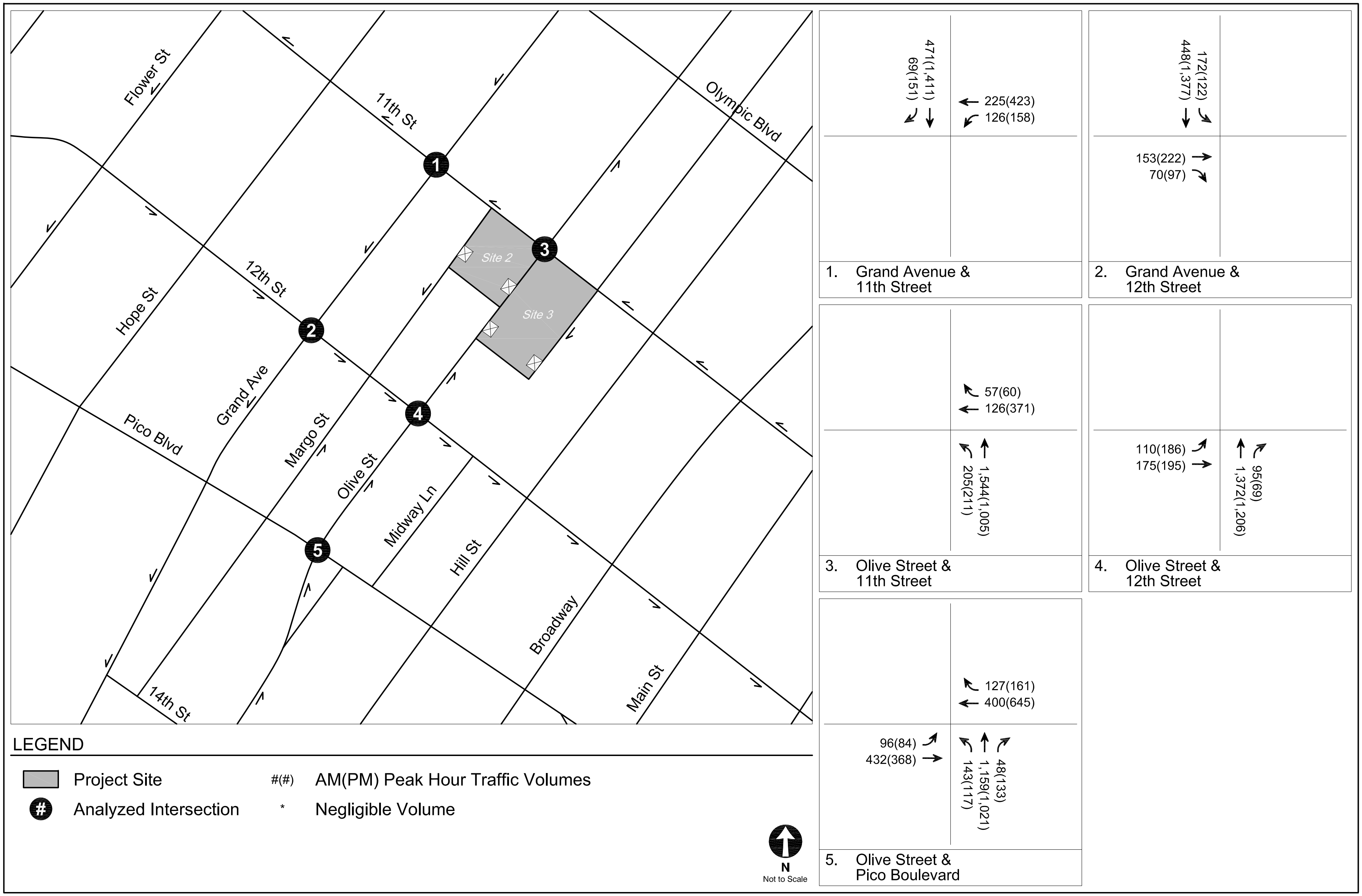
The Project design has included the wider sidewalks along 11th Street and added similar wide sidewalks along Olive Street. The main pedestrian entrances to the buildings are along the wide Olive Street sidewalks.

Due to the recent streetscape improvements, such as the MyFigueroa Project, further roadway modifications may not be available to reduce the extended queues. The inbound Project driveways would be designed to minimize spillover into the adjacent roadways.



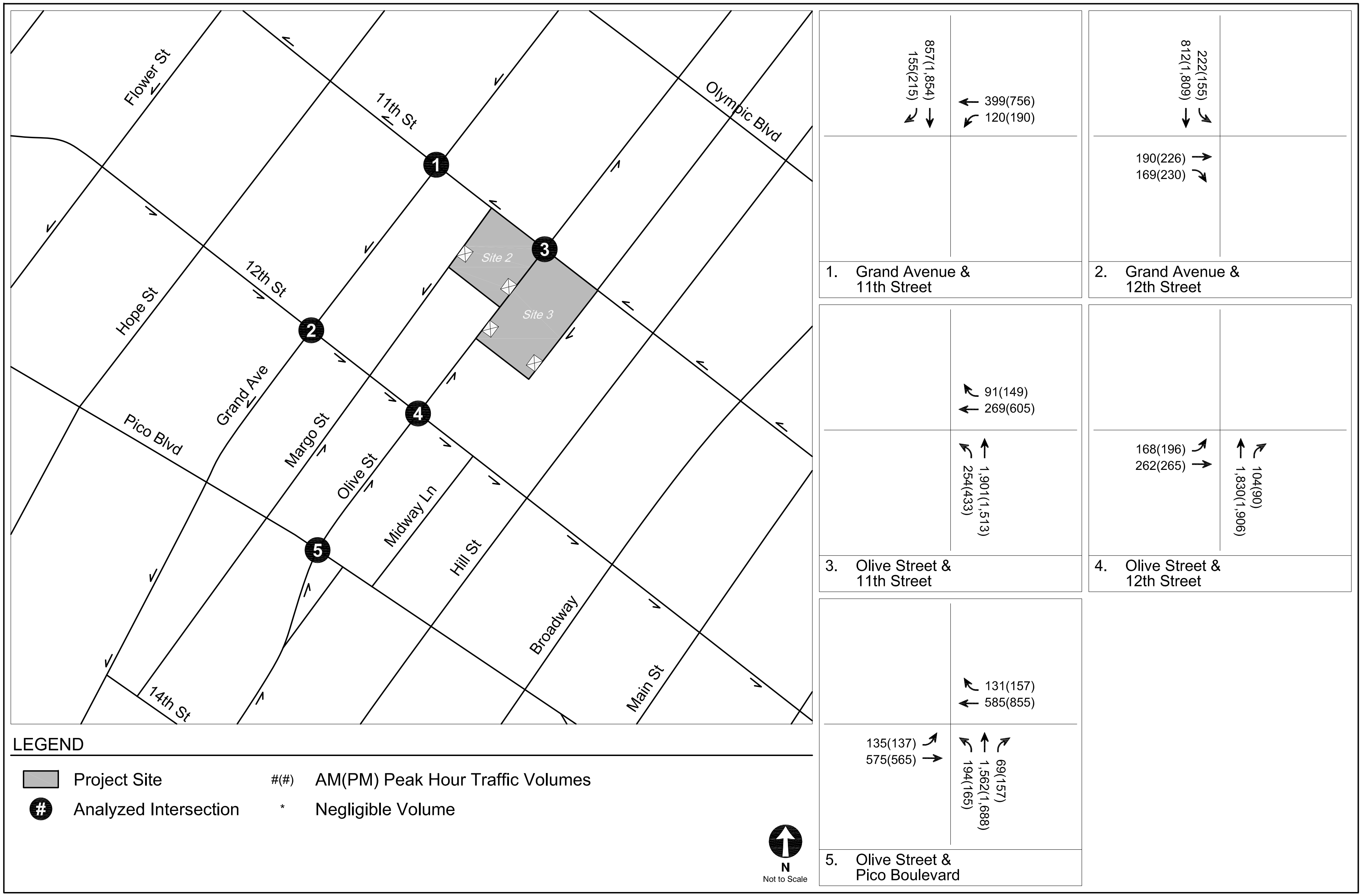
EXISTING WITH PROJECT PHASE 1 CONDITIONS (YEAR 2019)
SITE 2 PEAK HOUR TRAFFIC VOLUMES

FIGURE 14



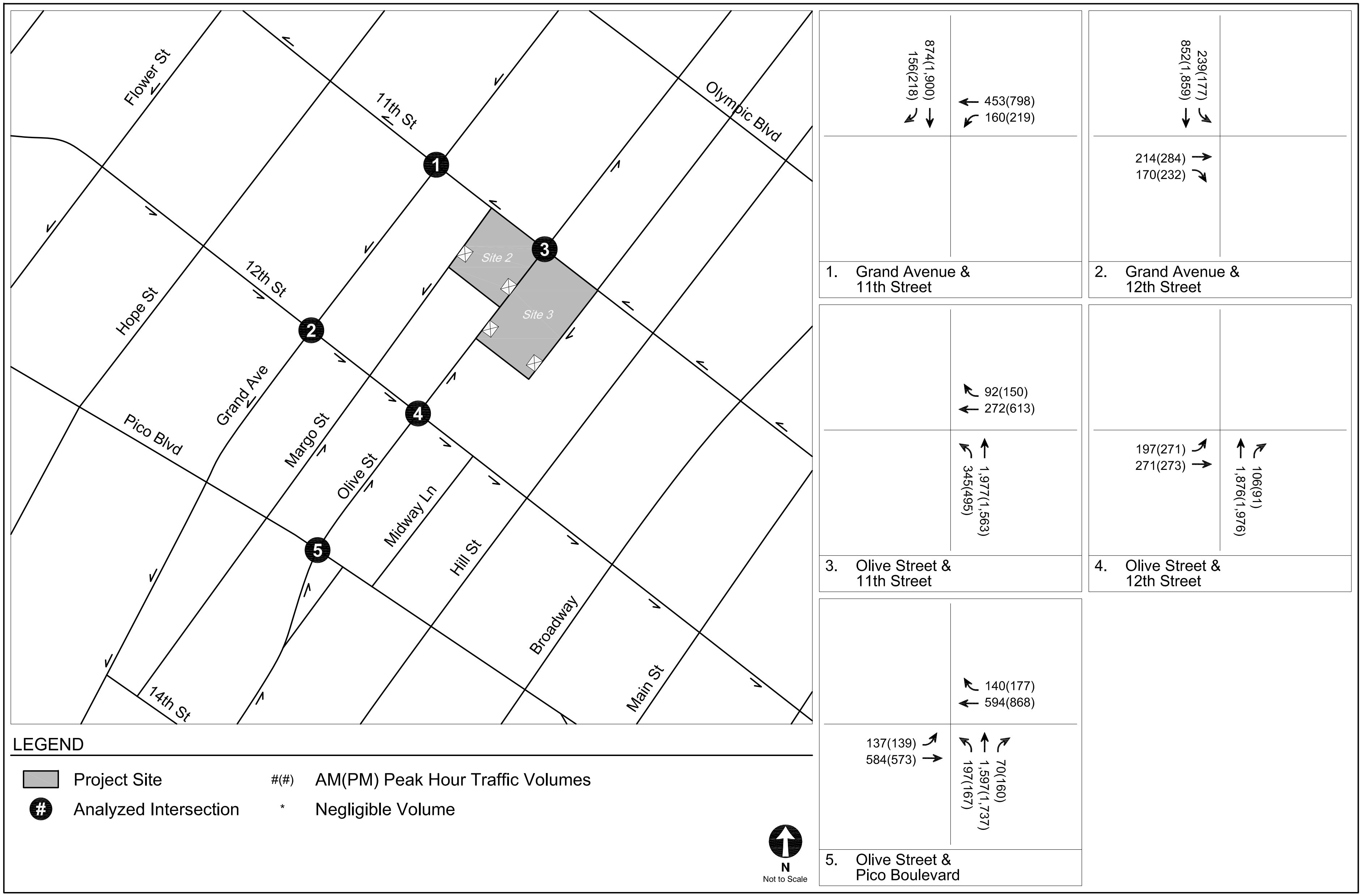
EXISTING WITH PROJECT PHASE 2 (FULL BUILDOUT) CONDITIONS (YEAR 2019)
SITES 2 & 3 PEAK HOUR TRAFFIC VOLUMES

FIGURE 15



FUTURE WITH PROJECT PHASE 1 CONDITIONS (YEAR 2024)
SITE 2 PEAK HOUR TRAFFIC VOLUMES

FIGURE 16



FUTURE WITH PROJECT PHASE 2 (FULL BUILDOUT) CONDITIONS (YEAR 2026)
SITES 2 & 3 PEAK HOUR TRAFFIC VOLUMES

FIGURE 17

TABLE 8
EXISTING WITH PROJECT CONDITIONS (YEAR 2019) - PHASE 1
INTERSECTION LEVELS OF SERVICE

No	Intersection	Peak Hour	Exisiting		Existing with Project		
			Delay	LOS	Delay	LOS	Change in Delay
1.	Grand Avenue &	AM	14.4	B	14.6	B	0.2
	11th Street	PM	18.3	B	18.4	B	0.1
2.	Grand Avenue &	AM	19.9	B	19.7	B	-0.2
	12th Street	PM	27.3	C	27.4	C	0.1
3.	Olive Street &	AM	26.3	C	27.2	C	0.9
	11th Street	PM	27.6	C	28.1	C	0.5
4.	Olive Street &	AM	15.1	B	16.2	B	1.1
	12th Street	PM	16.9	B	17.6	B	0.7
5.	Olive Street &	AM	20.8	C	20.8	C	0.0
	Pico Boulevard	PM	18.0	B	18.2	B	0.2

Notes
Delay is measured in seconds per vehicle
LOS = Level of service
Results per Synchro 10 (HCM methodology)

TABLE 9
EXISTING WITH PROJECT CONDITIONS (YEAR 2019) - PHASE 2 (FULL BUILDOUT)
INTERSECTION LEVELS OF SERVICE

No	Intersection	Peak Hour	Exisiting		Existing with Project		
			Delay	LOS	Delay	LOS	Change in Delay
1.	Grand Avenue & 11th Street	AM	14.4	B	15.5	B	1.1
		PM	18.3	B	18.9	B	0.6
2.	Grand Avenue & 12th Street	AM	19.9	B	19.3	B	-0.6
		PM	27.3	C	27.9	C	0.6
3.	Olive Street & 11th Street	AM	26.3	C	29.7	C	3.4
		PM	27.6	C	29.1	C	1.5
4.	Olive Street & 12th Street	AM	15.1	B	16.5	B	1.4
		PM	16.9	B	18.6	B	1.7
5.	Olive Street & Pico Boulevard	AM	20.8	C	20.9	C	0.1
		PM	18.0	B	18.4	B	0.4

Notes
Delay is measured in seconds per vehicle
LOS = Level of service
Results per Synchro 10 (HCM methodology)

TABLE 10
FUTURE WITH PROJECT CONDITIONS (YEAR 2024) - PHASE 1
INTERSECTION LEVELS OF SERVICE

No	Intersection	Peak Hour	Future without Project		Future with Project		
			Delay	LOS	Delay	LOS	Change in Delay
1.	Grand Avenue & 11th Street	AM	17.2	B	17.4	B	0.2
		PM	41.0	D	42.3	D	1.3
2.	Grand Avenue & 12th Street	AM	17.5	B	17.4	B	-0.1
		PM	32.3	C	32.5	C	0.2
3.	Olive Street & 11th Street	AM	39.9	D	44.1	D	4.2
		PM	58.9	E	62.8	E	3.9
4.	Olive Street & 12th Street	AM	19.3	B	19.7	B	0.4
		PM	20.4	C	21.1	C	0.7
5.	Olive Street & Pico Boulevard	AM	25.9	C	26.3	C	0.4
		PM	30.0	C	32.2	C	2.2

Notes
Delay is measured in seconds per vehicle
LOS = Level of service
Results per Synchro 10 (HCM methodology)

TABLE 11
FUTURE WITH PROJECT CONDITIONS (YEAR 2026) - PHASE 2 (FULL BUILDOUT)
INTERSECTION LEVELS OF SERVICE

No	Intersection	Peak Hour	Future without Project		Future with Project		
			Delay	LOS	Delay	LOS	Change in Delay
1.	Grand Avenue &	AM	17.3	B	18.6	B	1.3
	11th Street	PM	42.5	D	49.4	D	6.9
2.	Grand Avenue &	AM	17.4	B	17.2	B	-0.2
	12th Street	PM	32.5	C	33.4	C	0.9
3.	Olive Street &	AM	41.8	D	62.6	E	20.8
	11th Street	PM	60.9	E	67.9	E	7.0
4.	Olive Street &	AM	19.5	B	20.2	C	0.7
	12th Street	PM	20.5	C	22.0	C	1.5
5.	Olive Street &	AM	26.6	C	27.3	C	0.7
	Pico Boulevard	PM	31.5	C	35.8	D	4.3

Notes
Delay is measured in seconds per vehicle
LOS = Level of service
Results per Synchro 10 (HCM methodology)

Section 4E
Residential Street Cut-Through Analysis

This section summarizes the residential street cut-through analysis for the Project. The residential street cut-through analysis determines potential increases in average daily traffic volumes on designated Local Streets, as classified in the Mobility Plan, that can be identified as cut-through trips generated by the Project and that can adversely affect the character and function of those streets.

Section 3.5.2 of the TAG provides a list of questions to assess whether the Project would negatively affect residential streets. Due to the Project's location in downtown Los Angeles, residential streets would not be affected by Project traffic and a residential street cut-through analysis would not be required.

Section 4F
Construction Impact Analysis

This section summarizes the construction schedule and construction impact analysis for the Project. The construction impact analysis relates to the temporary impacts that may result from the construction activities associated with the Project and was performed in accordance with Section 3.4, Project Construction, of the TAG.

CONSTRUCTION EVALUATION CRITERIA

Section 3.4.3 of the TAG identifies three types of in-street construction impacts that require further analysis to assess the effects of Project construction on the existing pedestrian, bicycle, transit, or vehicle circulation. The three types of impacts and related populations are:

1. Temporary transportation constraints – potential impacts on the transportation system
2. Temporary loss of access – potential impacts on visitors entering and leaving sites
3. Temporary loss of bus stops or rerouting of bus lines – potential impacts on bus travelers

The factors used to determine the significance of a project's impacts involve the likelihood and extent to which an impact might occur, the potential inconvenience caused to users of the transportation system, and consideration for public safety. Construction activities could potentially interfere with pedestrian, bicycle, transit, or vehicle circulation and accessibility to adjoining areas. As detailed in Section 3.4.4 of the TAG, the proposed construction plans should be reviewed to determine whether construction activities would require any of the following actions:

- Street, sidewalk, or lane closures
- Block existing vehicle, bicycle, or pedestrian access along a street or to parcels fronting the street
- Modification of access to transit stations, stops, or facilities during revenue hours

- Closure or movement of an existing bus stop or rerouting of an existing bus line
- Creation of transportation hazards

PROPOSED CONSTRUCTION SCHEDULE

The Project is anticipated to be constructed in two phases over a period of approximately 34 months for completion of Phase 1, anticipated to be complete in the Year 2024, and approximately 37 months for completion of Phase 2 (Full Buildout), anticipated to be complete in the Year 2026. The construction period would include sub-phases of site demolition, excavation and grading, foundations, and building construction. Peak haul truck activity occurs during excavation and grading, and peak worker activity occurs during building construction. These two sub-phases of construction were studied in greater detail.

With the implementation of the Construction Management Plan, which is described in more detail below, it is anticipated that some haul truck activity to and from the Project Site could occur during the morning and afternoon peak hours. In addition, as discussed in more detail in the following sections, worker trips to and from the Project Site could also occur during the morning and afternoon peak hours. Therefore, further analysis was conducted to determine if peak hour construction traffic impacts are expected during the excavation, grading, and building phases of construction.

EXCAVATION AND GRADING PHASE

The peak period of truck activity during construction of Phase 1 and Phase 2 (Full Buildout) would occur during excavation and grading of the Project Site.

Haul trucks would travel on approved truck routes designated within the City. Given the Project Site's proximity to SR 110 and I-10, haul truck traffic would take the most direct route to the appropriate freeway ramps. The haul route will be reviewed and approved by the City. Haul routes for Phase 1 and Phase 2 (Full Buildout) are shown in Figures 18 and 19.

Phase 1

Based on projections compiled for Phase 1 of the Project, approximately 118,543 cubic yards (CY) of material would be excavated and removed from the Project Site over a 91-workday period. Based on estimates from the Applicant, this period would require up to 90 haul trucks per day. Thus, up to 180 daily haul truck trips (90 inbound, 90 outbound) are forecast to occur during the excavation and grading period, with approximately 24 trips per hour (12 inbound, 12 outbound) uniformly over a typical eight-hour workday.

Transportation Research Circular No. 212, Interim Materials on Highway Capacity (Transportation Research Board, 1980) defines passenger car equivalency (PCE) for a vehicle as the number of through moving passenger cars to which it is equivalent based on the vehicle's headway and delay-creating effects. Table 8 of *Transportation Research Circular No. 212* and Exhibit 12-25 of the HCM suggest a PCE of 2.0 for trucks. Assuming a PCE factor of 2.0, the 180 truck trips would be equivalent to 360 daily PCE trips. The 24 hourly truck trips would be equivalent to 48 PCE trips (24 inbound, 24 outbound) per hour.

In addition, a maximum of 40 construction workers would work at the Project Site during this phase. Assuming minimal carpooling amongst those workers, an average vehicle occupancy (AVO) of 1.135 persons per vehicle was applied, as provided in *CEQA Air Quality Handbook* (South Coast Air Quality Management District, 1993). Therefore, 40 workers would result in a total of 36 vehicle trips to and 36 vehicle trips from the Project Site on a daily basis.

Phase 2 (Full Buildout)

During Phase 2 (Full Buildout), approximately 156,232 CY of material would be excavated and removed from the Project Site over a 122-workday period. Based on estimates from the Applicant, this period would require up to 90 haul trucks per day. Thus, up to 180 daily haul truck trips (90 inbound, 90 outbound) are forecast to occur during the excavation and grading period, with approximately 24 trips per hour (12 inbound, 12 outbound) uniformly over a typical eight-hour workday.

Assuming a PCE factor of 2.0, the 180 truck trips would be equivalent to 360 daily PCE trips. The 24 hourly truck trips would be equivalent to 48 PCE trips (24 inbound, 24 outbound) per hour. In addition, a maximum of 40 construction workers would work at the Project Site during this phase. Consistent with the construction assumptions detailed above, an AVO of 1.135 persons per vehicle was applied. Therefore, 40 workers would result in a total of 36 vehicle trips to and 36 vehicle trips from the Project Site on a daily basis.

BUILDING CONSTRUCTION PHASE

<u>Phase 1</u>

The estimated number of construction workers each day depends on the phase of construction. According to construction projections prepared for the Project, the building subphase of construction would employ the most construction workers, with a maximum of approximately 400 workers per day for all components of the building (i.e., framing, plumbing, elevators, inspections, finishing). However, since the different building components would not be constructed or installed simultaneously, this cumulative estimate likely overstates the number of workers that would be expected on the peak construction day. Furthermore, on most of the estimated workdays to complete the Project, there would be far fewer workers than on the peak day. Therefore, the estimate of 400 workers per day used for the purposes of this analysis represents a very conservative estimate.

Assuming an AVO of 1.135 persons per vehicle, 400 workers would result in a total of 353 vehicles that would arrive and depart from the Project Site each day. The estimated number of daily trips associated with the construction workers is approximately 706 (353 inbound and 353 outbound trips), but nearly all of those trips would occur outside of the peak hours, as described above. As such, the building phase of Project construction is not expected to cause a significant traffic impact at any of the study intersections.

During Phase 1 construction, adequate parking for construction workers would be secured in local public parking facilities or, if needed, a remote site with shuttle service provided. Restrictions against workers parking in the public right-of-way in the vicinity of (or adjacent to) the Project Site will be identified as part of the Construction Management Plan. All construction materials storage and truck staging would be contained on-site.

Phase 2 (Full Buildout)

During Phase 2 (Full Buildout), the building subphase of construction would employ the most construction workers, with a maximum of approximately 425 workers per day for all components of the building (i.e., framing, plumbing, elevators, inspections, finishing). However, since the different building components would not be constructed or installed simultaneously, this cumulative estimate likely overstates the number of workers that would be expected on the peak construction day. Furthermore, on most of the estimated workdays to complete the Project, there would be far fewer workers than on the peak day. Therefore, the estimate of 425 workers per day used for the purposes of this analysis represents a higher-than-expected estimate.

Consistent with the Phase 1 construction assumptions detailed above, an AVO of 1.135 persons per vehicle was applied. Therefore, 425 workers would result in a total of 375 vehicles that would arrive and depart from the Project Site each day. The estimated number of daily trips associated with the construction workers is approximately 750 (375 inbound and 375 outbound trips), but nearly all of those trips would occur outside of the peak hours, as described in the Phase 1 of the Project construction details above. As such, the building phase of Project construction is not expected to cause a significant traffic impact at any of the study intersections.

During Phase 2 (Full Buildout) construction, adequate parking for construction workers would be secured in local public parking facilities or, if needed, a remote site with shuttle service provided. Restrictions against workers parking in the public right-of-way in the vicinity of (or adjacent to) the Project Site will be identified as part of the Construction Management Plan. Construction materials storage and truck staging would generally be contained on-site.

CONSTRUCTION IMPACT ANALYSIS

The traffic impacts associated with haul truck activity and construction worker trips during the morning and afternoon peak hours for Phase 1 and Phase 2 (Full Buildout) were analyzed. The five study intersections analyzed were based on the haul routes shown in Figures 18 and 19 and are the same five study intersections analyzed in Section 4D. The results are shown in Tables 12 and 13 for the morning and afternoon peak periods, respectively, and the LOS worksheets are provided in Appendix E. Because construction of Phase 2 of the Project would not commence until the completion of Phase 1 of the Project, the construction traffic impact analysis of Phase 2 was analyzed under Year 2024 conditions with the inclusion of Phase 1 Project traffic. As shown in Tables 12 and 13, the construction traffic would not result in a temporary significant impact at any of the five study intersections during the morning and afternoon peak hours under both Existing With Phase 1 Construction Conditions (Year 2019) and Future With Phase 2 (Full Buildout) Construction Conditions (Year 2024).

POTENTIAL IMPACTS ON ACCESS, TRANSIT, AND PARKING

Project construction is not expected to create hazards for roadway travelers, bus riders, or parkers, so long as commonly practiced safety procedures for construction are followed. Such procedures and other measures (e.g., to address temporary traffic control, lane closures, sidewalk closures, etc.) have been incorporated into the Construction Management Plan. The construction-related impacts associated with access and transit are anticipated to be less than significant, and the implementation of the Construction Management Plan described below would further reduce those impacts.

Access

Construction activities are expected to be primarily contained within the Project Site boundaries. However, it is expected that construction fences may encroach into the public right-of-way (e.g., sidewalks and roadways) adjacent to the Project Site. Adjacent to the Project Site, the parking lane on Olive Street and the travel lane on 11^{th} Street would be used throughout the construction period of Phase 1 and the curb lane on Olive Street and travel lane on 11^{th} Street would be used throughout the construction period of Phase 2 (Full Buildout) for equipment staging, concrete pumping, deliveries, etc. The dedicated bicycle lane on 11th Street would be temporarily restriped as a traffic lane with bicycle “sharrow” markings. Temporary traffic controls would be provided to direct traffic around any closures as required in the Construction Management Plan. Travel lanes would be maintained on Olive Street and 11th Street throughout the construction period and emergency access would not be impeded.

The use of the public right-of-way along Olive Street and 11th Street would require temporary re-routing of pedestrian and bicycle traffic as the sidewalks fronting the Project Site would be closed. A K-rail system and pedestrian canopy would be provided along Olive Street and 11th Street. The Construction Management Plan would include measures to ensure pedestrian and bicycle safety along the affected sidewalks, bicycle facilities, and temporary walkways (e.g., use of directional signage, maintaining continuous and unobstructed pedestrian paths, and/or providing overhead covering).

Transit

The Metro bus stop adjacent to Site 3 at the southeast corner of Olive Street & 11th Street would need to be temporarily relocated to the northeast corner of the intersection during construction of Phase 2 (Full Buildout). Construction would not impact Metro property or equipment; however, Metro would be notified should the Project construction affect any Metro facilities.

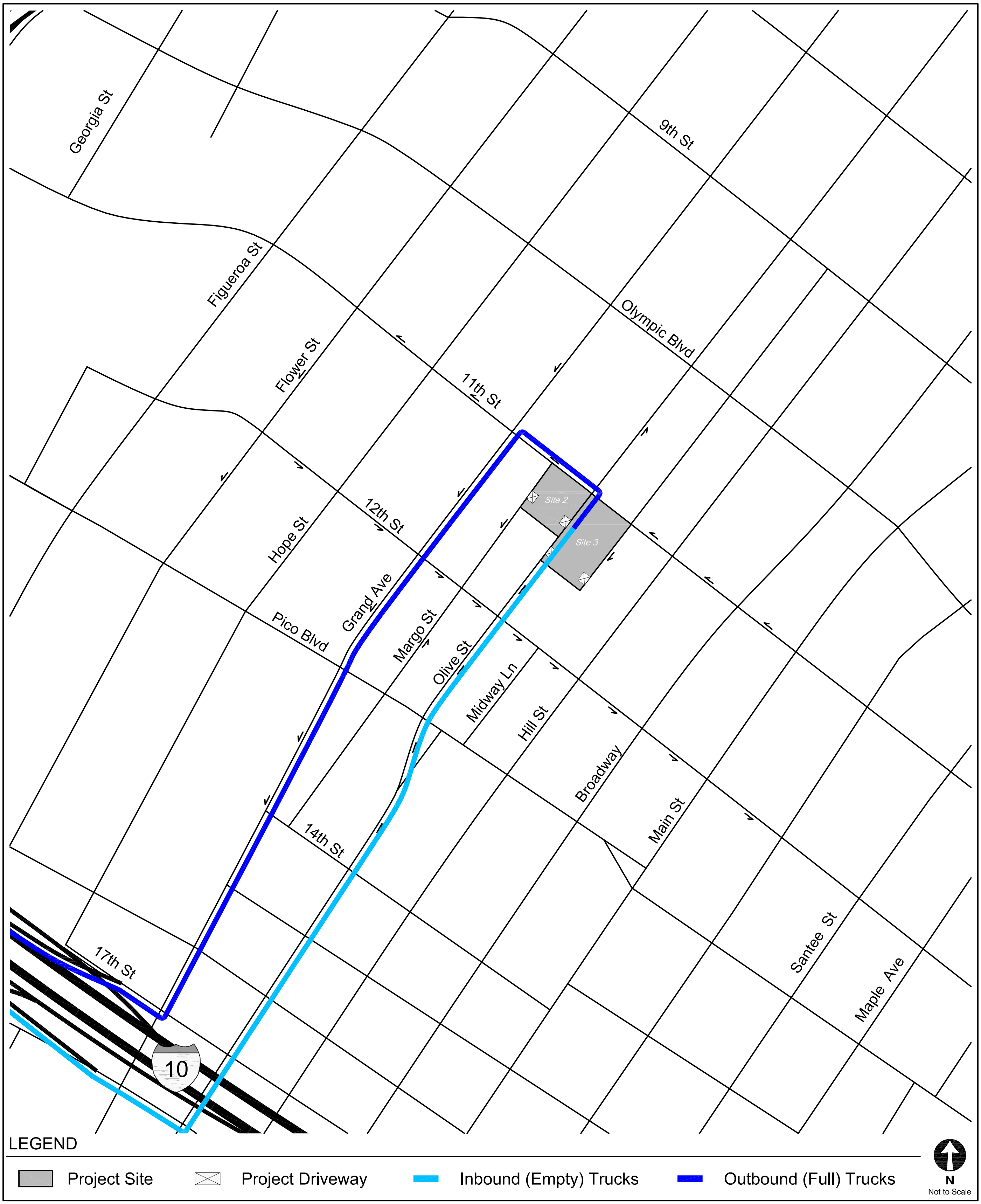
Parking

Parking is allowed on Olive Street adjacent to the both Sites 2 and 3, so construction would result in a temporary loss of on-street parking spaces. On Olive Street, this would result in the temporary loss of six metered on-street parking spaces adjacent to Site 2 on the west side of the street, and two metered on-street parking spaces adjacent to Site 3 on the east side of the street. Coordination with the LADOT Parking Meters Division should be included in the Construction Management Plan as a result of the temporary loss of the nine metered on-street parking spaces on Olive Street

CONSTRUCTION MANAGEMENT PLAN

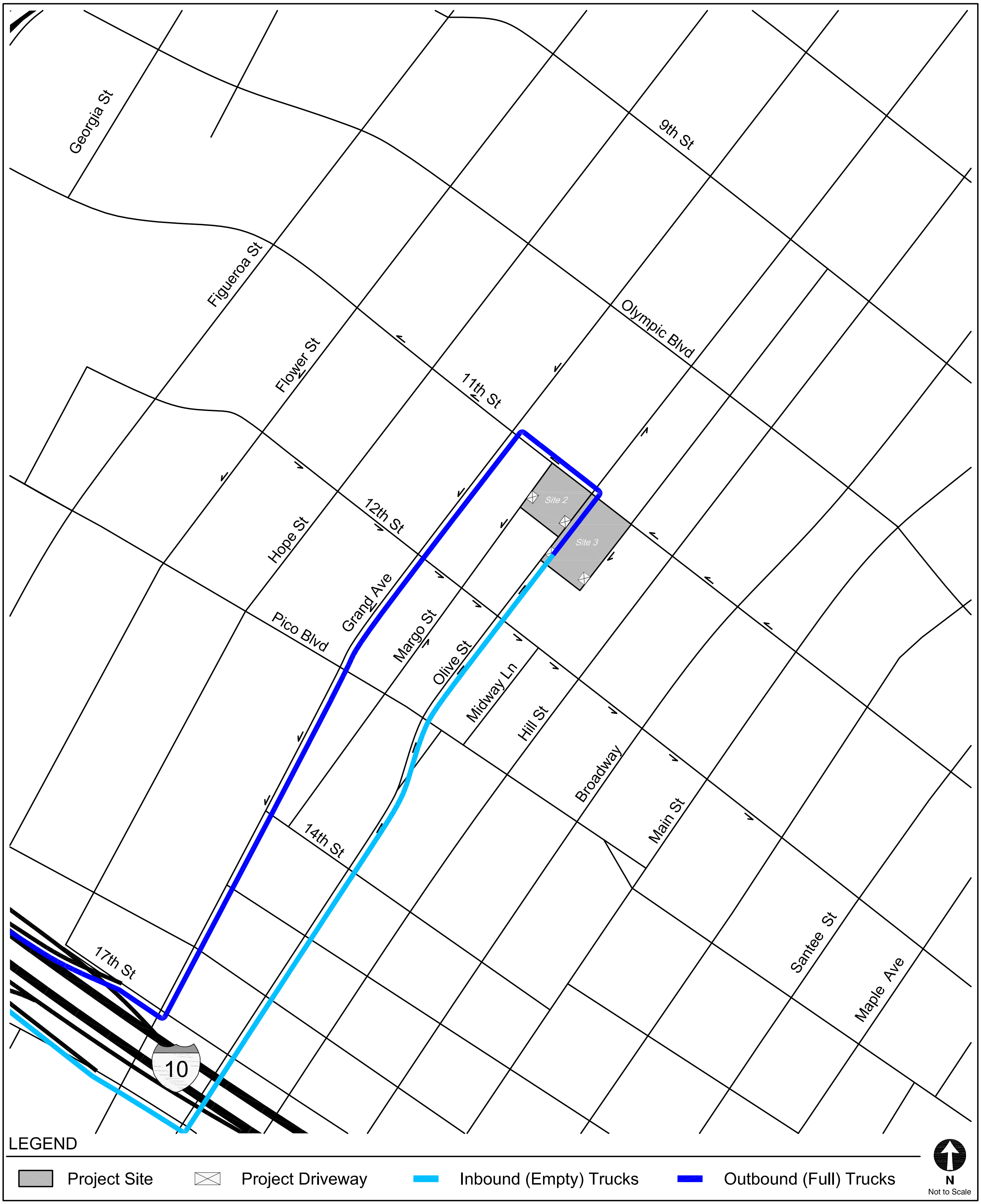
A detailed Construction Management Plan, including street closure information, a detour plan, haul routes, and a staging plan, would be prepared and submitted to the City for review and approval, prior to commencing construction. The Construction Management Plan would formalize how construction would be carried out and identify specific actions that would be required to reduce effects on the surrounding community. The Construction Management Plan shall be based on the nature and timing of the specific construction activities and other projects in the vicinity of the Project Site, and shall include, but not be limited to, the following elements, as appropriate:

- Advance, bilingual notification of adjacent property owners and occupants of upcoming construction activities, including durations and daily hours of operation.
- Prohibition of construction worker or equipment parking on adjacent streets
- Temporary pedestrian, bicycle, and vehicular traffic controls during all construction activities adjacent to Olive Street and 11th Street, to ensure traffic safety on public rights of way
- Temporary traffic control during all construction activities adjacent to public rights-of-way to improve traffic flow on public roadways (e.g., flag men)
- Scheduling of construction activities to reduce the effect on traffic flow on surrounding arterial streets
- Potential sequencing of construction activity for Phase 1 and Phase 2 (Full Buildout) of the Project to reduce the amount of construction-related traffic on arterial streets
- Containment of construction activity within the Project Site boundaries
- Construction-related vehicles/equipment shall not park on surrounding public streets
- Coordination with Metro to address any transit stop relocations
- Coordination with LADOT Parking Meter Division to address loss of metered parking spaces
- Safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers shall be implemented as appropriate



SITE 2 HAUL ROUTE

FIGURE 18



SITE 3 HAUL ROUTE

FIGURE 19

TABLE 12
EXISTING WITH PHASE 1 CONSTRUCTION CONDITIONS (YEAR 2019)
INTERSECTION LEVELS OF SERVICE

No	Intersection	Peak Hour	Exisiting		Existing with Project		
			Delay	LOS	Delay	LOS	Change in Delay
1.	Grand Avenue &	AM	14.4	B	14.6	B	0.2
	11th Street	PM	18.3	B	18.4	B	0.1
2.	Grand Avenue &	AM	19.9	B	19.9	B	0.0
	12th Street	PM	27.3	C	27.8	C	0.5
3.	Olive Street &	AM	26.3	C	26.7	C	0.4
	11th Street	PM	27.6	C	28.2	C	0.6
4.	Olive Street &	AM	15.1	B	15.4	B	0.3
	12th Street	PM	16.9	B	16.9	B	0.0
5.	Olive Street &	AM	20.8	C	21.1	C	0.3
	Pico Boulevard	PM	18.0	B	18.2	B	0.2

Notes
Delay is measured in seconds per vehicle
LOS = Level of service
Results per Synchro 10 (HCM methodology)

TABLE 13
FUTURE WITH PHASE 2 (FULL BUILDOUT) CONSTRUCTION CONDITIONS (YEAR 2024)
INTERSECTION LEVELS OF SERVICE

No	Intersection	Peak Hour	Future without Project		Future with Project		
			Delay	LOS	Delay	LOS	Change in Delay
1.	Grand Avenue &	AM	17.4	B	17.5	B	0.1
	11th Street	PM	42.3	D	42.0	D	-0.3
2.	Grand Avenue &	AM	17.4	B	17.3	B	-0.1
	12th Street	PM	32.5	C	33.2	C	0.7
3.	Olive Street &	AM	44.1	D	46.4	D	2.3
	11th Street	PM	62.8	E	64.8	E	2.0
4.	Olive Street &	AM	19.7	B	20.1	C	0.4
	12th Street	PM	21.1	C	21.1	C	0.0
5.	Olive Street &	AM	26.3	C	27.4	C	1.1
	Pico Boulevard	PM	32.2	C	33.3	C	1.1

Notes
Delay is measured in seconds per vehicle
LOS = Level of service
Results per Synchro 10 (HCM methodology)

Section 4G
Parking

This section provides an analysis of the proposed parking and the potential parking impacts of the Project.

PARKING SUPPLY

All Project parking would be provided on-site. Site 2 would provide a parking garage with a total of 593 automobile spaces and 235 bicycle spaces in five below-grade levels and four above-grade levels. Access would be provided via driveways on Olive Street and Margo Street. Site 3 would provide a parking garage with a total of 764 automobile spaces and 290 bicycle spaces in five below-grade levels and four above-grade levels. Access would be provided via a driveway on Olive Street and an alleyway. In total, the Project would provide 1,357 automobile parking spaces and 525 bicycle parking spaces, including 54 short-term and 471 long-term bicycle spaces.

VEHICLE PARKING CODE REQUIREMENTS

The parking requirements of the Project were calculated by applying the appropriate parking ratios from LAMC Section 12.21A.4. The Project Sites fall within the Downtown Business District as defined by the LAMC; therefore, parking ratios identified in Section 12.21A.4(i) were applied to the retail uses. The Project Sites also fall within the Central City Exception as defined by the LAMC; therefore, parking ratios identified in Section 12.21A.4(p) were applied to the residential uses. The following LAMC parking rates were applied:

- Residential
    - 1.0 space per dwelling unit (three or fewer habitable rooms)
    - 1.25 spaces per dwelling unit (more than three habitable rooms)

- Retail
  - 1.0 space per 1,000 sf of gross floor area
- Restaurant
  - 1.0 space per 1,000 sf of gross floor area

Per the LAMC, Site 2's proposed 89 studio apartments would require a total of 89 parking spaces, the 268 one-bedroom apartments would require 268 parking spaces, the 179 two and three-bedroom apartments would require 224 parking spaces, and the 3,076 sf of retail space and the 3,077sf of restaurant space would not require any parking spaces as the total area of the land uses is less than 7,500 sf. In total, the Site 2 LAMC parking requirement is 581 spaces.

Site 3's proposed 188 studio apartments would require a total of 188 parking spaces, the 366 one-bedroom apartments would require 366 parking spaces, the 159 two and three-bedroom apartments would require 199 parking spaces, the 5,638 sf of retail space would require six parking spaces and the 5,639 sf of restaurant space would require six parking spaces, for a total LAMC parking requirement of 764 spaces.

As summarized in Table 14, the total LAMC requirement for both sites is 1,345 vehicle spaces.

The Project's proposed 1,357 spaces meet the LAMC requirements for on-site parking supply.

BICYCLE PARKING CODE REQUIREMENTS

LAMC Section 12.21.A.16 details the parking requirements for new developments. However, new bicycle parking requirements have been developed by the City, and the Project would follow the new requirements set out in Case No. CPC-2016-4216-CA and Council File No. 12-1297-S1. The updated Code bicycle parking requirement of the Project is based on the following rates:

- Residential
  - Short-Term:

Short-Term:	Dwelling units 1-25	1.0 space per 10.0 dwelling units
	Dwelling units 26-100	1.0 space per 15.0 dwelling units
	Dwelling units 101-200	1.0 space per 20.0 dwelling units
	Dwelling units 201+	1.0 space per 40.0 dwelling units

- Long-Term:

Long-Term:	Dwelling units 1-25	1.0 space per 1.0 dwelling units
	Dwelling units 26-100	1.0 space per 1.5 dwelling units
	Dwelling units 101-200	1.0 space per 2.0 dwelling units
	Dwelling units 201+	1.0 space per 4.0 dwelling units

- Retail
  - Short-Term:1.0 space per 2,000 sf of retail space
  - Long-Term:1.0 space per 2,000 sf of retail space

- Restaurant Space
  - Short-Term:1.0 space per 2,000 sf of restaurant space
  - Long-Term:1.0 space per 2,000 sf of restaurant space

Per the updated LAMC, the Project's proposed 1,249 dwelling units would require a total of 45 short-term and 462 long-term bicycle parking spaces and the retail and restaurant space would require nine additional short-term and nine additional long-term spaces.

As summarized in Table 15, the total LAMC requirement for both sites is 54 short-term and 471 long-term bicycle parking spaces.

The Project's proposed 54 short-term and 471 long-term bicycle spaces meet the LAMC requirements for on-site parking supply.

TABLE 14
VEHICLE PARKING CODE REQUIREMENTS
SITES 2 & 3

Land Use	Size	Code Requirement [a]	Parking Required
Site 2			
Residential	357 du	1.0 space / 1 du (three or fewer habitable rooms)	357 spaces
	179 du	1.25 spaces / 1 du (more than three habitable rooms)	224 spaces
Retail Space	3,076 sf	[b]	0 spaces
Restaurant Space	3,077 sf	[b]	0 spaces
		Code Required Parking - Site 2	**581 spaces**
		Parking Provided - Site 2	**593 spaces**
Land Use	**Size**	**Code Requirement [a]**	**Parking Required**
Site 3			
Residential	554 du	1.0 space / 1 du (three or fewer habitable rooms)	554 spaces
	159 du	1.25 spaces / 1 du (more than three habitable rooms)	199 spaces
Retail Space	5,638 sf	1.0 space / 1,000 sf	6 spaces
Restaurant Space	5,639 sf	1.0 space / 1,000 sf	6 spaces
		Code Required Parking - Site 3	**764 spaces**
		Parking Provided - Site 3	**764 spaces**
		Total Code Required Parking	**1,345 spaces**
		Total Parking Provided	**1,357 spaces**

Notes
sf: square feet
[a] Source: Sections 12.21.A.4 of *Los Angeles Municipal Code* (City of Los Angeles, revised March 24, 2015) for the Downtown Business District.
[b] Per Downtown Parking District (DPD) Exceptions To Commercial Regulations of the LAMC, no parking is required for commerical space less than 7,500 sf.

TABLE 15
BICYCLE PARKING CODE REQUIREMENTS
SITES 2 & 3

Land Use	Size	Short-Term		Long-Term	
		Rate [a]	Requirement	Rate [a]	Requirement
Site 2					
Residential	25 du	1.0 sp / 10 du	2 sp	1.0 sp / 1 du	25 sp
	75 du	1.0 sp / 15.0 du	5 sp	1.0 sp / 1.5 du	50 sp
	100 du	1.0 sp / 20 du	5 sp	1.0 sp / 2 du	50 sp
	336 du	1.0 sp / 40 du	8 sp	1.0 sp / 4 du	84 sp
Retail [b]	3,076 sf	1.0 sp / 2,000 sf	1.5 sp	1.0 sp / 2,000 sf	1.5 sp
Restaurant Space [c]	3,077 sf	1.0 sp / 2,000 sf	1.5 sp	1.0 sp / 2,000 sf	1.5 sp
Bicycle Parking Requirements		Short-Term:	23 sp	Long-Term:	212 sp
Site 2 Code Bicycle Parking Requirement					**235 sp**
Land Use	**Size**	**Short-Term**		**Long-Term**	
		Rate [a]	**Requirement**	**Rate [a]**	**Requirement**
Site 3					
Residential	25 du	1.0 sp / 10 du	2 sp	1.0 sp / 1 du	25 sp
	75 du	1.0 sp / 15.0 du	5 sp	1.0 sp / 1.5 du	50 sp
	100 du	1.0 sp / 20 du	5 sp	1.0 sp / 2 du	50 sp
	513 du	1.0 sp / 40 du	13 sp	1.0 sp / 4 du	128 sp
Retail [b]	5,638 sf	1.0 sp / 2,000 sf	3 sp	1.0 sp / 2,000 sf	3 sp
Restaurant Space [c]	5,639 sf	1.0 sp / 2,000 sf	3 sp	1.0 sp / 2,000 sf	3 sp
Bicycle Parking Requirements		Short-Term:	31 sp	Long-Term:	259 sp
Site 3 Code Bicycle Parking Requirement					**290 sp**
Total Site 2 & 3 Code Bicycle Parking Requirement					**525 sp**

Notes
[a] Bicycle requirements as calculated by Section 12.21.A.16 of *Los Angeles Municipal Code* and proposed amendments per Case No. CPC-2016-4216-CA and Council File No. 12-1297-51.
sp - space
[b] Minimum bicycle requirement for retail space is two spaces for both short and long-term.
[c] Minimum bicycle requirement for restaurant space is two spaces (for both short and long-term) per restaurant for restaurant floor area under 1,000 sf.

Chapter 5
Summary and Conclusions

This study was undertaken to analyze the potential transportation impacts of the DTLA South Park Properties Sites 2 & 3 at 1105 and 1120 S. Olive Street on the local street system. The following summarizes the results of this analysis:

- The Project would be constructed in two phases, with Phase 1 being Site 2 and Phase 2 (Full Buildout) being Site 3. Phase 1 is anticipated to be complete in Year 2024 and Phase 2 (Full Buildout) in Year 2026.
- The Project is consistent with the City's plans, programs, ordinances, and policies and would not generate any VMT or geometric design hazard impacts.
- After application of appropriate trip reduction credits, Phase 1 is estimated to generate 136 morning peak hour trips and 170 afternoon peak hour trips. Phase 2 (Full Buildout) of the Project is estimated to generate 329 morning peak hour trips and 405 afternoon peak hour trips.
- The Project provides adequate internal circulation to accommodate vehicular, pedestrian, and bicycle traffic without impeding through traffic movements on City streets.
- The Project will incorporate pedestrian and bicycle-friendly designs, such as a bicycle parking, wider sidewalks, and open space.
- Although construction activities would occur during the commuter morning and afternoon peak hours, it will not result in significant traffic impacts. A Construction Management Plan will ensure that construction impacts are less than significant.

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Appendix A

Memorandum of Understanding

LADOT

Transportation Assessment Memorandum of Understanding (MOU)

This MOU acknowledges that the Transportation Assessment for the following Project will be prepared in accordance with the latest version of LADOT's Transportation Assessment Guidelines:

I. PROJECT INFORMATION

Project Name: Mack REG South Park Sites 2 & 3

Project Address: 1105 S Olive Street, Los Angeles, CA 90015 / 1120 S Olive Street, Los Angeles, CA 90015

Project Description: The Project consists of two sites currently occupied by surface parking lots. Site 2 (1105 S Olive St) proposes to construct 536 high-rise apartment units with 6,153 square feet (sf) of commercial uses. Site 3 (1120 S Olive St) proposes to construct 713 apartment units and 14,250 sf of commercial uses.

LADOT Project Case Number: ______________________

Project Site Plan attached? *(Required)* ■ Yes ☐ No

II. TRIP GENERATION

Geographic Distribution: N 24 % S 25 % E 22 % W 29 %

Illustration of Project trip distribution percentages at Study intersections attached? *(Required)* ■ Yes ☐ No

Trip Generation Adjustments *(Exact amount of credit subject to approval by LADOT)*

	Yes	No
Transit Usage	■	☐
Transportation Demand Management	☐	■
Existing Active Land Use	☐	■
Previous Land Use	☐	■
Internal Trip	■	☐
Pass-By Trip	■	☐

Trip Generation Rate(s): ITE 10th Edition / Other ______________________

Trip generation table including a description of the proposed land uses, ITE rates, estimated morning and afternoon peak hour volumes (ins/outs/totals), proposed trip credits, etc. attached? *(Required)* ☐ Yes ☐ No

	IN	OUT	TOTAL
AM Trips	100	236	336
PM Trips	254	151	405

III. STUDY AREA AND ASSUMPTIONS

Project Buildout Year: 2024 / 2026

Ambient or CMP Growth Rate: 1 % Per Yr.

Related Projects List, researched by the consultant and approved by LADOT, attached? *(Required)* ■ Yes ☐ No

Map of Study Intersections/Segments attached? *(May be subject to LADOT revision after access, safety and circulation analysis)*
■ Yes ☐ No

Is this Project located on a street within the High Injury Network? ☐ Yes ■ No

IV. ACCESS ASSESSMENT

Is the project on a lot that is 0.5-acre or more in total gross area? ■ Yes ☐ No

Is the project's frontage 250 linear feet or more along an Avenue or Boulevard as classified by the City's General Plan? ■ Yes ☐ No

Is the project's building frontage encompassing an entire block along an Avenue or Boulevard as classified by the City's General Plan? ☐ Yes ■ No

V. CONTACT INFORMATION

	CONSULTANT	DEVELOPER
Name:	Gibson Transportation Consulting, Inc.	Mark Wareham, Wareham Consulting, LLC
Address:	555 W. 5th Street, Suite 3375, Los Angeles, CA 90013	1150 S. Olive Street, Suite 2250, Los Angeles, CA 90015
Phone Number:	(213) 683-0088	
E-Mail:	pgibson@gibsontrans.com	

Approved by: x [signature] Consultant's Representative — Date: 10/2/19 — x [signature] LADOT Representative — Date: 10/2/19

STUDY INTERSECTIONS

1 See Table 1
2
3
4

LADOT Proj. Case No:

TABLE 1
STUDY INTERSECTIONS

No	N/S Street	E/W Street
1.	Grand Avenue	11th Street
2.	Grand Avenue	12th Street
3.	Olive Street	11th Street
4.	Olive Street	12th Street
5.	Olive Street	Pico Boulevard

TABLE 2
PROJECT TRIP GENERATION ESTIMATES
SITE 2 & 3

Land Use	ITE Land Use	Size	Daily	Morning Peak Hour			Afternoon Peak Hour		
				Inbound	Outbound	Total	Inbound	Outbound	Total
TRIP GENERATION RATES [a]									
Multifamily Housing (High-Rise) [b]	222	per du	4.45	24%	76%	0.23	61%	39%	0.30
Shopping Center	820	per ksf	37.75	62%	38%	0.94	48%	52%	3.81
High-Turnover (Sit-Down) Restaurant	932	per ksf	112.18	55%	45%	9.94	62%	38%	9.77
MIXED USE INTERNAL CAPTURE CREDIT [d]									
Residential			6%	4%	6%		5%	8%	
Retail			50%	17%	50%		63%	55%	
Restaurant			23%	21%	4%		24%	45%	
TRIP GENERATION ESTIMATES									
Land Use	**ITE Land Use**	**Size**	**Daily**	**Morning Peak Hour**			**Afternoon Peak Hour**		
				Inbound	**Outbound**	**Total**	**Inbound**	**Outbound**	**Total**
Site 2 - SW Corner									
Multifamily Housing (High-Rise) [b]	222	536 du	2,385	30	93	123	98	63	161
Less Internal Capture - [d]			*(143)*	*(1)*	*(6)*	*(7)*	*(5)*	*(5)*	*(10)*
Subtotal - Residential			**2,242**	**29**	**87**	**116**	**93**	**58**	**151**
Shopping Center	826	3,077 sf	116	2	1	3	6	6	12
Less Walk-in/Transit Use - 10% [c]			*(12)*	*0*	*0*	*0*	*(1)*	*(1)*	*(1)*
Less Internal Capture - [d]			*(46)*	*0*	*(1)*	*(1)*	*(3)*	*(3)*	*(6)*
Less Pass By - 50% [e]			*(29)*	*(1)*	*0*	*(1)*	*(1)*	*(1)*	*(3)*
Subtotal - Shopping Center			**29**	**1**	**0**	**1**	**1**	**1**	**2**
Restaurant	932	3,076 sf	345	17	14	31	19	11	30
Less Walk-in/Transit Use - 10% [c]			*(35)*	*(2)*	*(1)*	*(3)*	*(2)*	*(1)*	*(3)*
Less Internal Capture - [d]			*(73)*	*(3)*	*(1)*	*(4)*	*(4)*	*(5)*	*(9)*
Less Pass By - 20% [e]			*(47)*	*(2)*	*(2)*	*(5)*	*(3)*	*(1)*	*(4)*
Subtotal - Restaurant			**190**	**10**	**9**	**19**	**10**	**4**	**14**
Site 2 Sub-Total			**2,461**	**40**	**96**	**136**	**104**	**63**	**167**
Site 3 - SE Corner									
Multifamily Housing (High-Rise) [b]	222	713 du	3,173	39	125	164	131	83	214
Less Internal Capture - [d]			*(206)*	*(2)*	*(8)*	*(10)*	*(7)*	*(7)*	*(14)*
Subtotal - Residential			**2,967**	**37**	**117**	**154**	**124**	**76**	**200**
Shopping Center	826	7,125 sf	269	4	3	7	13	14	27
Less Walk-in/Transit Use - 10% [c]			*(27)*	*0*	*0*	*(1)*	*(1)*	*(1)*	*(3)*
Less Internal Capture - [d]			*(137)*	*(1)*	*(2)*	*(3)*	*(8)*	*(7)*	*(15)*
Less Pass By - 50% [e]			*(53)*	*(2)*	*(1)*	*(2)*	*(2)*	*(3)*	*(5)*
Subtotal - Shopping Center			**52**	**1**	**0**	**1**	**2**	**2**	**4**
Restaurant	932	7,125 sf	799	39	32	71	43	27	70
Less Walk-in/Transit Use - 10% [c]			*(80)*	*(4)*	*(3)*	*(7)*	*(4)*	*(3)*	*(7)*
Less Internal Capture - [d]			*(162)*	*(7)*	*(1)*	*(8)*	*(9)*	*(11)*	*(20)*
Less Pass By - 20% [e]			*(111)*	*(6)*	*(6)*	*(11)*	*(6)*	*(3)*	*(9)*
Subtotal - Restaurant			**446**	**22**	**23**	**45**	**24**	**10**	**34**
Site 3 Sub-Total			**3,465**	**60**	**140**	**200**	**150**	**88**	**238**
Total Project Trips			**5,926**	**100**	**236**	**336**	**254**	**151**	**405**

Notes

1,000 square feet = ksf.
du: dwelling units
[a] Source: *Trip Generation, 10th Edition* , Institute of Transportation Engineers, 2017.
[b] The trip generation estimates for Multifamily Housing (High-Rise) were based on the Multi-family High-Rise Land Use in Dense Multi-Use Urban Areas per LADOT's *Transportation Assessment Guidelines* .
[c] Per LADOT's *Transportation Assessment Guidelines,* the Project Site is located within a 1/4 mile walking distance from a RapidBus stop, therefore a transit reduction is applied to account for transit usage and walking visitor arrivals from the surrounding neighborhoods and adjacent commercial developments.
[d] Internal capture adjustments account for person trips made between distinct land uses within a mixed-use development without using an off-site road system. Based on the NCHRP 8-51 Internal Trip Capture Estimation Tool (National Cooperative Highway Research Program Report 684 – Enhancing Internal Trip Capture Estimation for Mixed-Use Developments, Transportation Research Board and National Research Council, 2011), the Project trips can potentially be adjusted for over 25% internal capture adjustments.
[e] Pass-by adjustments account for Project trips made as an intermediate stop on the way from an origin to a primary trip destination without route diversion.

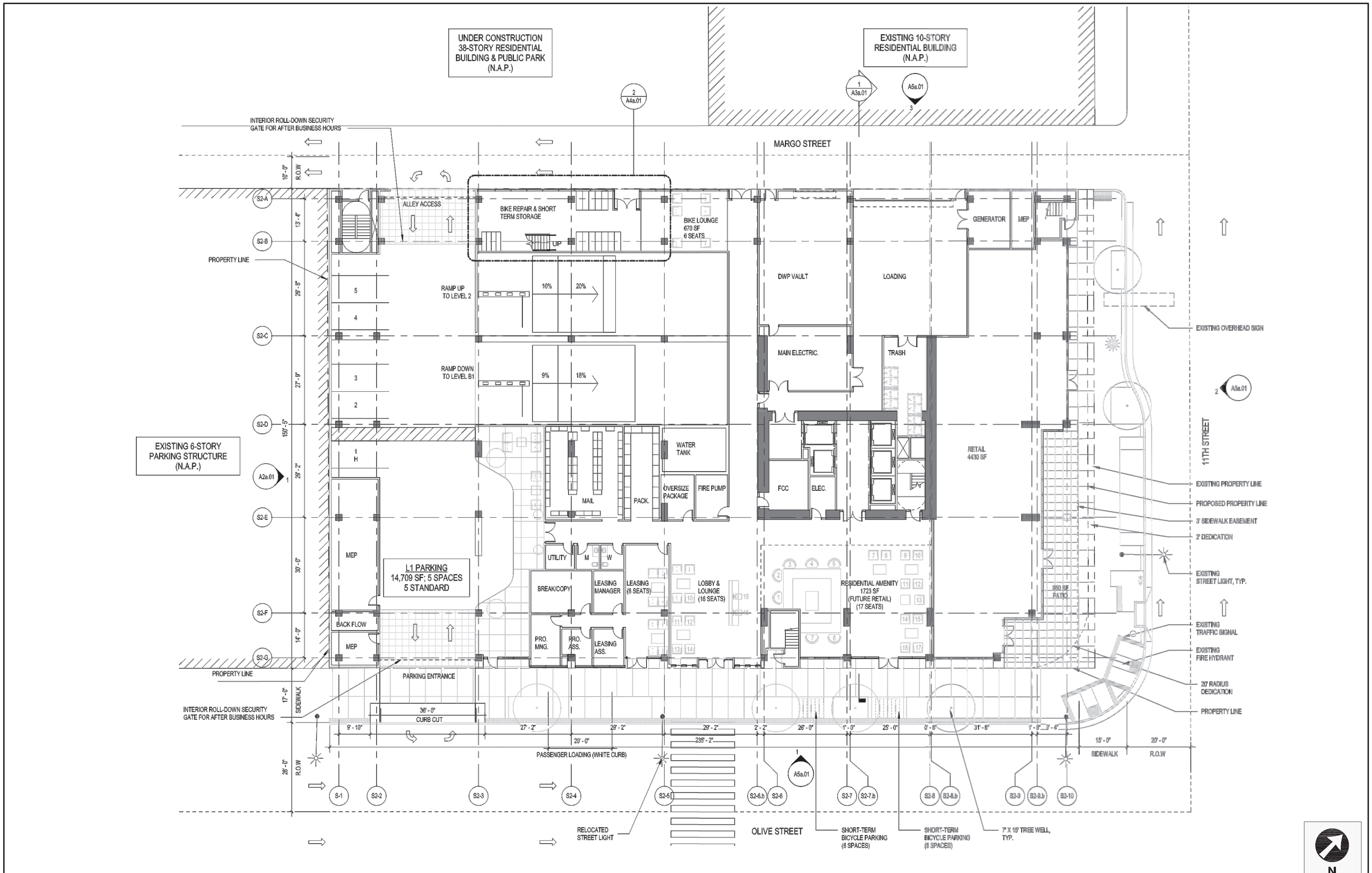
TABLE 3
PRELIMINARY RELATED PROJECTS LIST

No	Project	Address	Description	Trip Generation						
				Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
1.	LA Trade Tech College	400 W Washington Bl	6,300 students	101	38	139	172	80	253	253
2.	124 E Olympic Bl	124 E Olympic Bl	149-room hotel, 1,459 sf rooftop restaurant/bar, and 6,816 sf restaurant space	1,457	59	49	108	62	39	101
3.	11th & Hill Project	1115 S Hill St	172 condominium units and 6,850 sf restaurant	543	(45)	40	(5)	50	(7)	43
4.	Grand Residence	1229 S Grand Ave	161 condominium units and 3,000 sf restaurant	1,116	23	62	85	62	33	95
5.	1045 S Olive Street	1045 S Olive St	800 condominium units and 15,000 sf retail	5,289	69	297	366	306	166	472
6.	Hotel	1138 S Broadway	138-room hotel	644	20	25	45	22	25	47
7.	Amacon Project	1133 S Hope St	208 condominium units and 5,029 sf retail	1,543	20	74	94	91	50	141
8.	Restaurant	1036 S Grand Ave	7,149 sf restaurant	492	2	3	5	27	14	41
9.	1219 S Hope St	1219 S Hope St	75 hotel rooms and 2,650 sf retail	613	23	16	39	23	22	45
10.	Morrison Hotel	1246 S Hope St	258 high-rise apartments, 265 hotel rooms, and 6,000 sf retail	889	88	99	187	120	100	220
11.	SPR-Mixed-use Onyx West & East	1300 S Hope St	419 apartment units and 42,000 sf retail	4,280	88	105	193	136	102	238
12.	Olympic & Hill Mixed Use	1030 S Hill St	700 apartment units, 7,000 sf retail, 7,000 sf restaurant	3,392	49	193	242	181	104	285
13.	1323 S Flower St MU	1323 S Flower St	132-room hotel, 47 apartment units, and 4,000 sf rooftop bar/restaurant	1,287	33	40	73	61	39	100
14.	Flower Mixed-Use	1212 S Flower St	730 condominium units and 7,873 sf retail	3,956	78	233	311	229	121	350
15.	14th & Olive Mixed-Use	1340 S Olive St	156 apartment units, 5,000 sf retail and 10,000 sf restaurant	1,700	51	82	133	89	57	146
16.	Washington Bl Mixed-Use	200 E Washington Bl	111 affordable housing apartments, one apartment units, 7,300 sf retail	370	18	27	45	16	15	31
17.	14th St/Hill St (DTLA) Mixed-Use	1340 S Hill St	235 apartment units, 5,250 sf retail, and 4,000 sf restaurant	1,755	11	103	114	108	30	138
18.	Ethos Societe	806 S Garland Ave	118 apartment units, 69,295 sf office, 2,439 sf retail, 1,132 sf restaurant, 2,684 sf gym/spa	1,281	81	45	126	52	92	144
19.	Mixed-use	1100 S Main St	379 apartment units and 25,810 sf retail	385	9	103	112	78	14	92
20.	Broadway Mixed-Use	955 S Broadway	163 apartment units and 6,406 sf retail	1,275	21	72	93	74	43	117
21.	Mixed-Use	1334 S Flower St	188 apartment units and 10,096 sf retail/restaurant	1,038	(3)	63	60	67	22	89
22.	South Park Towers	1600 S Flower St	250 high-rise apartment units, 300-room hotel, 3,120 sf restaurant, 10,000 sf medical office	1,778	77	91	168	55	36	91
23.	City Lights	1300 S Figueroa St	1,024 hotel rooms	9,134	398	288	686	351	366	717
24.	Hill Street Mixed-Use	920 S Hill St	239 apartment units and 5,400 sf retail	1,476	23	84	107	87	50	137
25.	1370 S Flower St Residential	1410 S Flower St	152 apartment units and 1,184 sf retail	1,062	17	62	79	63	35	98
26.	Broadway Palace	928 S Broadway	667 apartment units, 17 condominium units, and 58,800 sf retail	4,715	21	229	250	272	109	381
27. [a]	Los Angeles Sports & Entertainment District	Figueroa St & Chick Hearn St	250,000 sf convention center expansion, 183-room hotel, 601,800 sf office, 1,152 apartment units, and 214,583 sf retail	27,007	1,254	721	1,975	1,085	1,637	2,722
28.	Embassy Tower	848 S Grand Ave	420 condominium units and 38,500 sf retail	3,882	66	144	210	212	165	377
29.	CIM South Park Apartments	888 S Hope St	526 apartment units	3,498	54	214	268	212	114	326
30.	1400 S Figueroa Street Residential Project	1400 S Figueroa St	106 apartment units and 4,834 sf retail	647	10	38	48	39	22	61
31.	845 Olive & 842 Grand Mixed-Use	845 S Olive St	208 apartment units and 2,430 sf retail	1,305	25	76	101	77	42	119
32.	Alexan South Broadway	850 S Hill St	305 apartment units, 3,500 sf retail, and 3,500 sf restaurant	1,998	29	108	137	117	67	184
33.	Olympic Tower	815 W Olympic Bl	374 condominium units, 373 hotel rooms, 33,498 sf office, 65,074 sf retail, and 10,801 sf conference center	4,423	166	170	336	189	185	374
34.	Apex Phase II	700 W 9th St	341 condominium units and 11,687 sf retail	2,624	37	146	183	143	95	238
35.	Prop Co II Site 3	1120 S Olive St	713 high-rise apartment units, 7,125 sf retail, 7,125 sf restaurant	3,009	73	162	235	258	160	418
36.	Mixed-Use	820 S Olive St	589 apartment units and 4,500 sf retail	3,309	63	202	264	195	106	302
37.	Figueroa Centre	911 S Figueroa St	220 hotel rooms, 200 apartment units, and 94,080 sf commercial	7,141	145	164	309	316	289	605
38.	1018 W Ingraham St	1018 W Ingraham St	43 apartment units and 7,400 sf retail	602	8	21	29	31	23	54
39.	Metropolis Mixed-Use	899 S Francisco St	836 condominium units, 480 hotel rooms, 988,225 sf office, and 46,000 sf retail	8,010	307	318	625	387	512	899
40.	Foreman and Clark Building	701 S Hill St	165 apartments, 11,902 sf restaurant, and 14,032 sf restaurant	2,792	18	57	75	132	127	259
41.	8th/Grand/Hope Project	754 S Hope St	409 condominium units and 7,329 sf retail	2,315	35	137	172	137	78	215
42.	Convention Center Modernization	NW Corner of Figueroa St & Venice Bl	Increase floor area by 1.8 million sf	25,236	--	--	--	9,777	225	10,002
43.	Mixed-Use	233 W Washington Bl	160 apartment units and 24,000 sf retail	1,764	25	56	81	89	71	160
44.	Mixed-Use	737 S Spring St	320 apartment units and 25,000 sf pharmacy/drugstore	3,942	72	141	213	167	116	283
45.	Mitsui Fudosan (Eighth and Figueroa Tower)	744 S Figueroa St	436 apartment units, 3,750 sf restaurant, and 3,750 sf retail	2,644	37	146	183	158	86	244
46.	Mixed-Use	732 S Spring St	400 apartment units and 15,000 sf retail	3,359	59	152	211	164	104	268
47.	Mixed-Use	755 S Los Angeles St	60,243 sf office, 16,694 sf retail, and 26,959 sf restaurant	2,482	110	57	167	105	100	205
48.	The City Market (Mixed-Use)	1057 S San Pedro St	877 apartment units, 68 condominium units, 210 hotel rooms, 549,141 sf office, 224,862 sf retail, and 744 cinema seats	16,433	837	434	1,271	632	957	1,589
49.	Mack Urban Site 1A	1155 S Olive St	258 room hotel, 1,896 sf specialty retail use, and 2,722 sf restaurant use	2,008	77	56	133	77	72	149
50.	The Reef - LA Mart/SOLA Village	1900 S Broadway	900 condominium units, 550 apartment units, 210 hotel rms, 143,100 sf retail, 180,000 sf office, 17,600 sf gallery/museum, and 8,000 sf gym	--	390	552	942	637	566	1,203
51.	Spring St Hotel	633 S Spring St	176 hotel rooms, 5,290 sf bar, and 8,430 sf restaurant	2,045	83	33	116	97	99	196
52.	7th & Maple Mixed-Use	701 S Maple Ave	452 apartment units, 6,800 sf retail, and 6,800 sf restaurant	3,199	67	179	246	185	105	290
53.	Southern California Flower Market Project	755 S Wall St	322 apartment units, 53,200 sf office, and 8,820 sf commercial	2,499	108	82	191	164	141	305
54.	Mixed-Use	601 S Main St	452 apartment units and 25,000 sf retail	2,686	36	144	179	152	87	238
55.	Mixed-Use (Herald Examiner)	1111 S Broadway	214 apartment units and 10,000 sf retail	5,198	144	176	319	258	274	532
56.	1323 S Grand Ave	1323 S Grand Ave	284 apartment units and 6,300 sf commercial	2,158	33	118	151	126	74	200
57.	940 S Hill Mixed-Use	940 S Hill St	232 apartment units and 14,000 sf retail	1,881	20	80	100	115	53	168
58.	LUXE Hotel Mixed-Use project	1020 S Figueroa St	435 condominium units, 300 hotel rooms, and 58,959 sf retail	4,859	150	199	349	228	169	397
59.	Fig + Pico Conference Center Hotels	1248-1260 S Figueroa St	1,162 hotel rooms and 13,145 sf restaurant	5,720	192	125	317	203	212	415
60.	949 S Hope Street Mixed-Use Development	949 S Hope St	236 apartment units and 5,954 sf retail	791	8	45	53	43	7	50
61.	Olympia Mixed-Use	1001 Olympic Bl	1,367 apartment units, 20,000 sf retail, and 20,000 sf restaurant	5,216	86	297	383	283	115	398
62.	Downtown LA Hotel	926 James M Wood Bl	247 hotel rooms	1,592	59	42	101	59	56	115
63.	945 W 8th Street	845 W 8th St	781 apartment units, and 6,700 sf commercial	2,869	63	146	209	144	91	235

Notes:

[a] The Los Angeles Sports and Entertainment District includes the remaining available development of the Specific Plan, including Fig Central located at 1101 S Flower Street (504 condominium units, 183 hotel rooms, and 166,000 sf retail), Circa located at 1200 S Figueroa Street (648 condominium units and 48,000 sf retail), and JW Marriott located at 1005 W Chick Hearn Court (170,000 sf conference/meeting space).

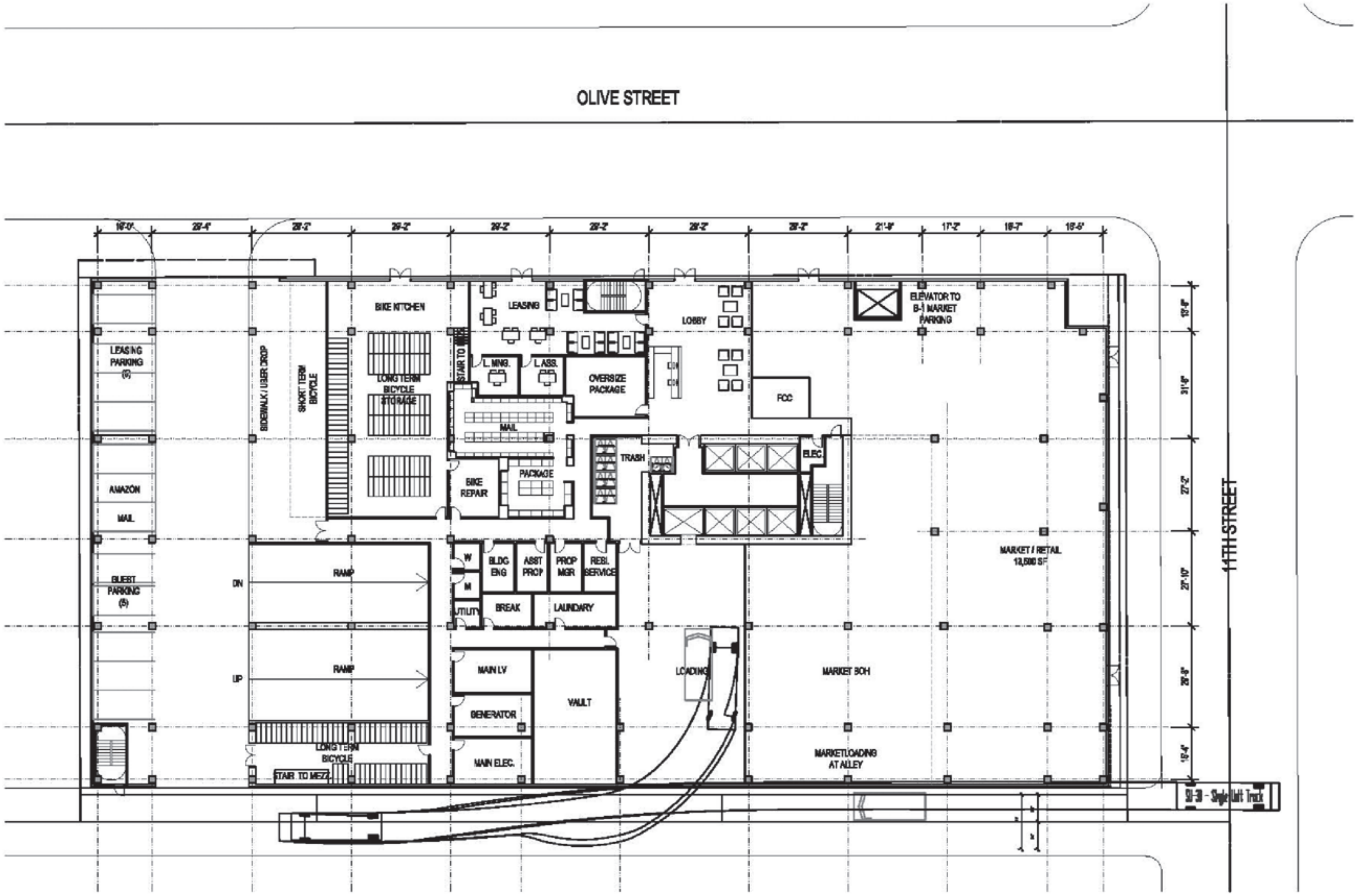
[b] Related project information provided by LADOT, Department of City Planning, and recent studies in the area.



Source: CallisonRTKL. May, 2018.

PROJECT SITE PLAN (SITE 2)

FIGURE 1

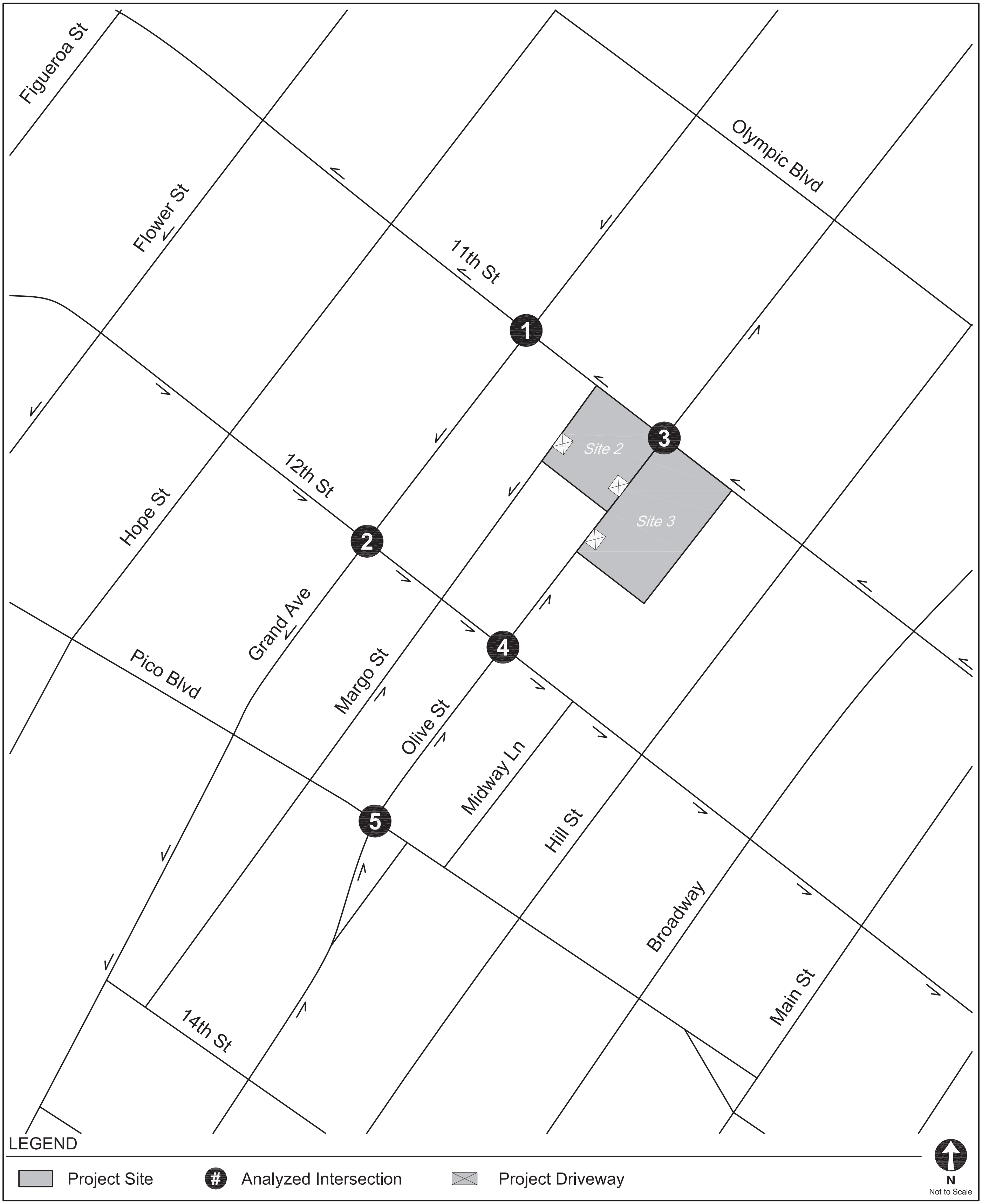


Source: CallisonRTKL, January, 2018

N
Not to Scale

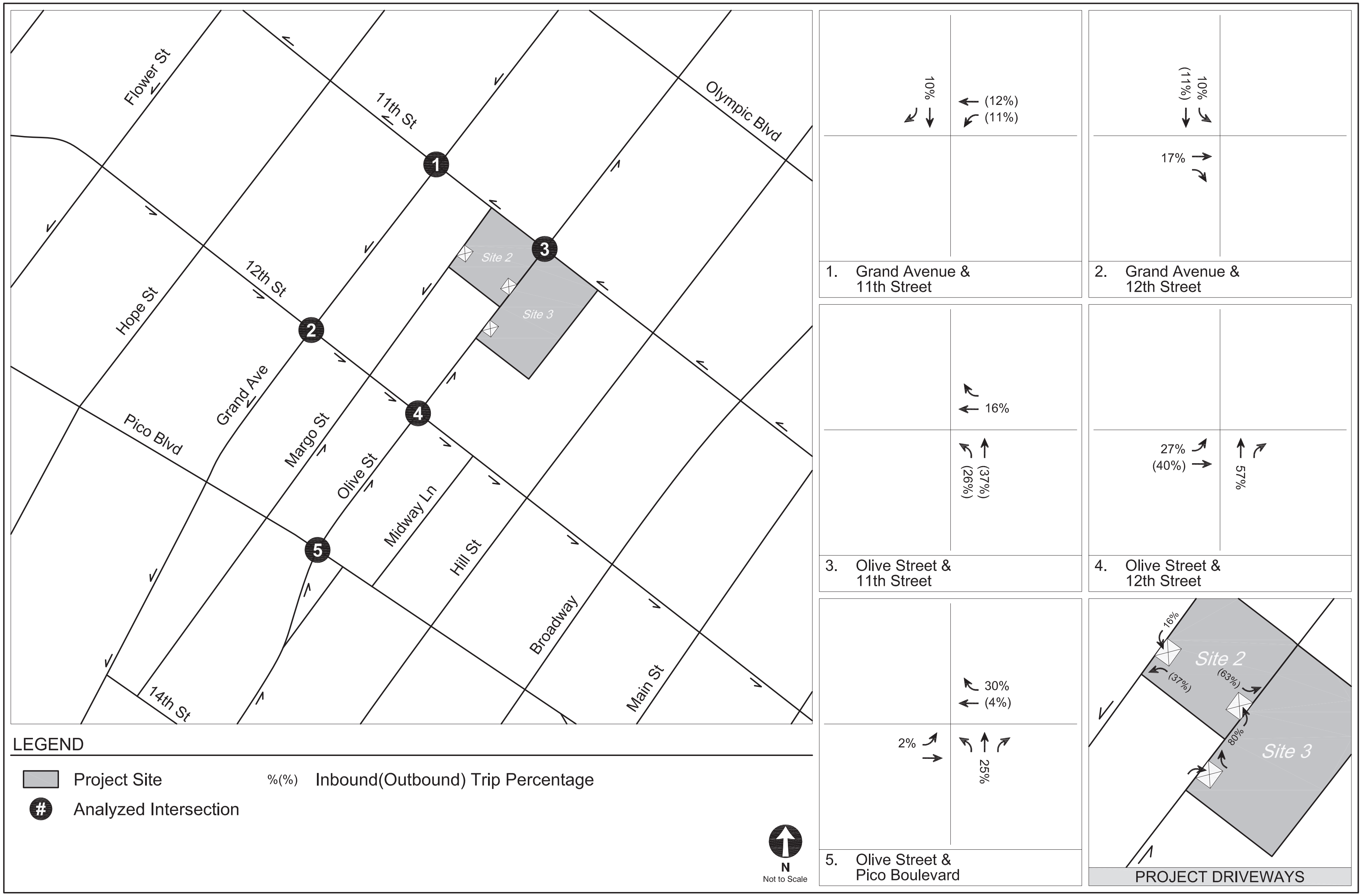
PROJECT SITE PLAN (SITE 3)

FIGURE 1B



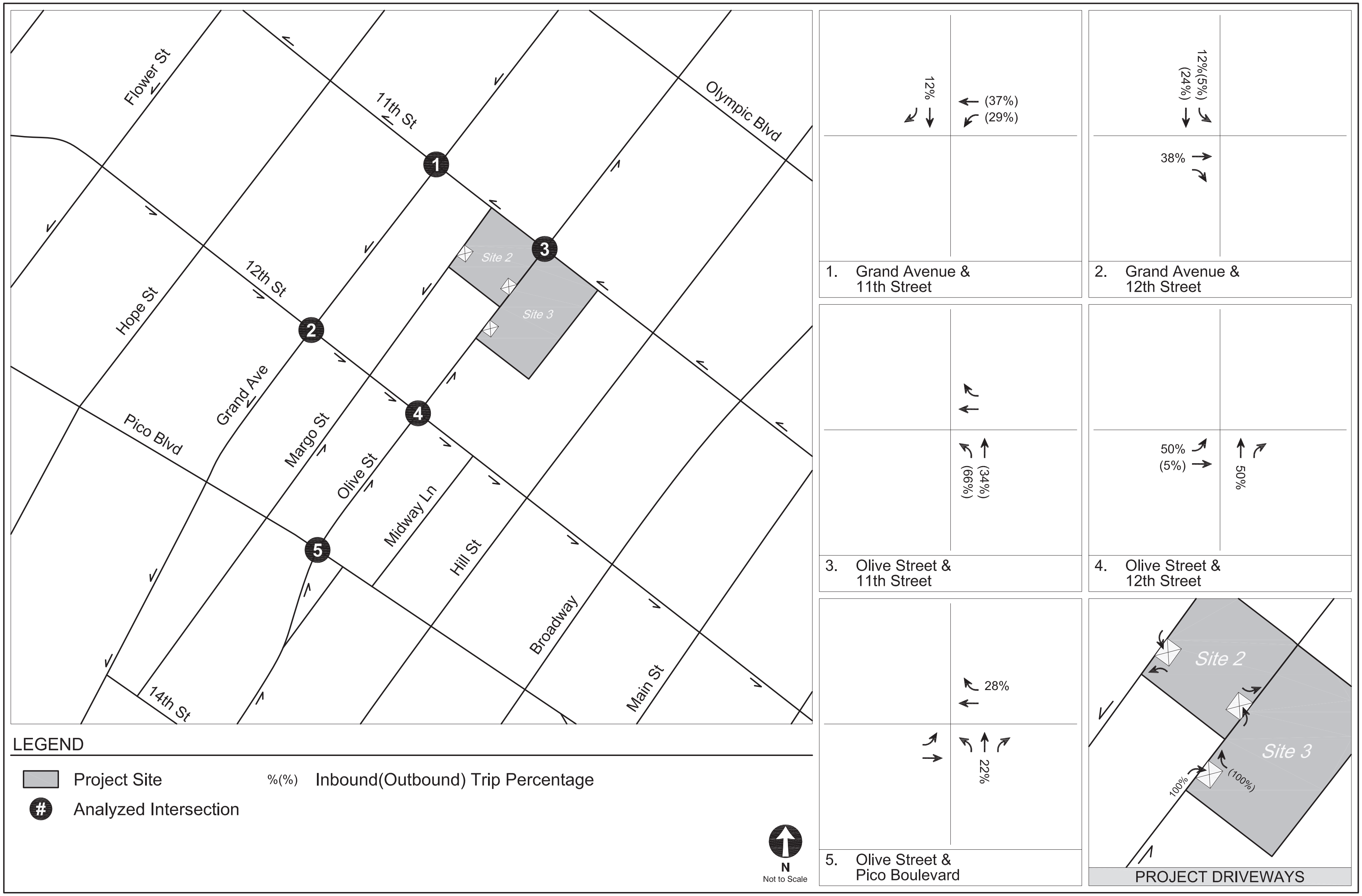
STUDY AREA & ANALYZED INTERSECTIONS

FIGURE 2



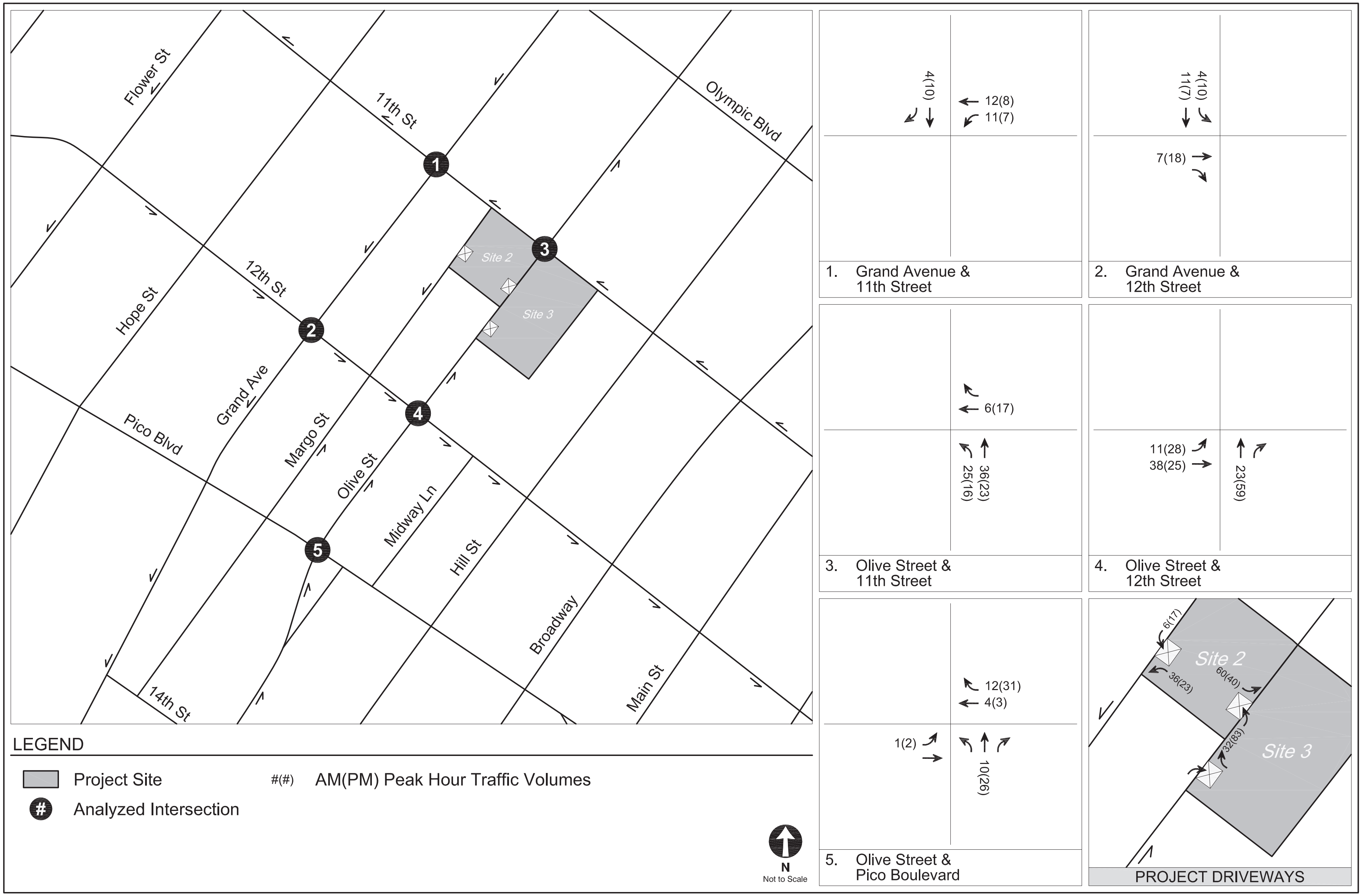
PROJECT TRIP DISTRIBUTION
SITE 2

FIGURE
3A



PROJECT TRIP DISTRIBUTION
SITE 3

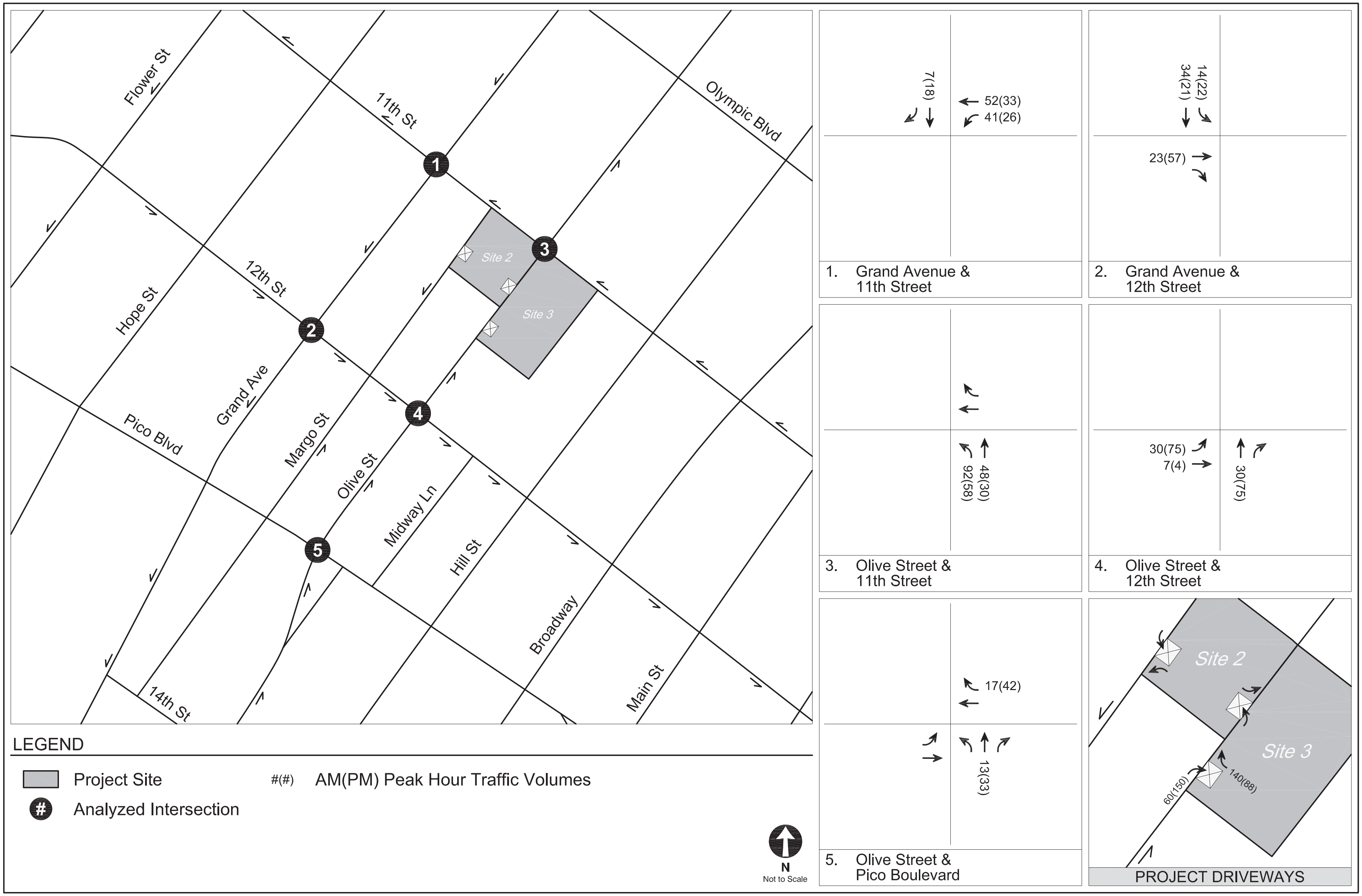
FIGURE 3B



PROJECT-ONLY PEAK HOUR TRAFFIC VOLUMES
SITE 2

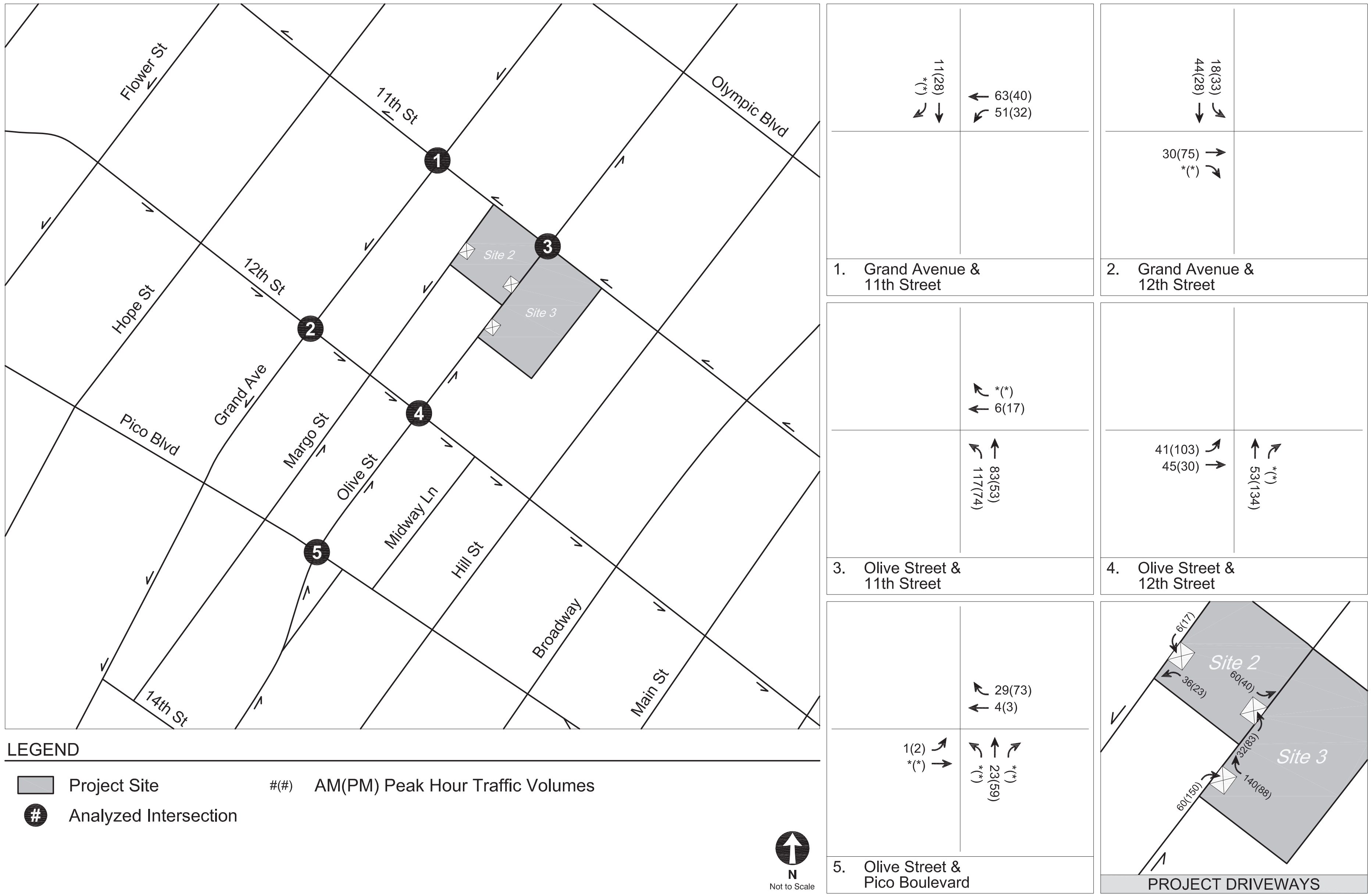
FIGURE
4A

Gibson transportation consulting, inc.



PROJECT-ONLY PEAK HOUR TRAFFIC VOLUMES
SITE 3

FIGURE 4B



PROJECT-ONLY PEAK HOUR TRAFFIC VOLUMES
SITES 2 & 3

FIGURE 4C

transportation consulting, inc.

LOCATIONS OF RELATED PROJECTS

FIGURE 5

Appendix B

Turning Movement Counts

Turning Movement Count Report AM

Location ID: 19
North/South: Grand Avenue
East/West: 11th Street

Date: 05/21/19
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	10	90	0	0	25	12	0	0	0	0	0	0	137
7:15	6	114	0	0	30	14	0	0	0	0	0	0	164
7:30	2	123	0	0	29	14	0	0	0	0	0	0	168
7:45	15	107	0	0	35	14	0	0	0	0	0	0	171
8:00	25	103	0	0	36	18	0	0	0	0	0	0	182
8:15	19	130	0	0	44	20	0	0	0	0	0	0	213
8:30	10	120	0	0	48	24	0	0	0	0	0	0	202
8:45	8	98	0	0	35	24	0	0	0	0	0	0	165
9:00	14	109	0	0	38	27	0	0	0	0	0	0	188
9:15	20	93	0	0	45	18	0	0	0	0	0	0	176
9:30	18	98	0	0	38	24	0	0	0	0	0	0	178
9:45	15	90	0	0	33	21	0	0	0	0	0	0	159

Total Volume:	162	1275	0	0	436	230	0	0	0	0	0	0	2103
Approach %	11%	89%	0%	0%	65%	35%	0%	0%	0%	0%	0%	0%	

Peak Hr Begin:	7:45												
PHV	69	460	0	0	163	76	0	0	0	0	0	0	768
PHF		0.888			0.830			0.000			0.000		0.901

Prepared by City Count, LLC. (www.citycount.com)

Turning Movement Count Report PM

Location ID: 19
North/South: Grand Avenue
East/West: 11th Street

Date: 05/21/19
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	19	162	0	0	30	22	0	0	0	0	0	0	233
15:15	28	189	0	0	34	19	0	0	0	0	0	0	270
15:30	23	207	0	0	42	23	0	0	0	0	0	0	295
15:45	17	249	0	0	54	21	0	0	0	0	0	0	341
16:00	21	304	0	0	30	24	0	0	0	0	0	0	379
16:15	27	349	0	0	50	25	0	0	0	0	0	0	451
16:30	22	331	0	0	44	25	0	0	0	0	0	0	422
16:45	17	351	0	0	57	33	0	0	0	0	0	0	458
17:00	31	341	0	0	73	31	0	0	0	0	0	0	476
17:15	43	362	0	0	84	27	0	0	0	0	0	0	516
17:30	30	336	0	0	119	40	0	0	0	0	0	0	525
17:45	47	344	0	0	106	27	0	0	0	0	0	0	524

Total Volume:	325	3525	0	0	723	317	0	0	0	0	0	0	4890
Approach %	8%	92%	0%	0%	70%	30%	0%	0%	0%	0%	0%	0%	

Peak Hr Begin:	17:00												
PHV	151	1383	0	0	382	125	0	0	0	0	0	0	2041
PHF	0.947			0.797			0.000			0.000			0.972

Prepared by City Count, LLC. (www.citycount.com)

Pedestrian/Bicycle Count Report

Leg:	North		East		South		West	
Class:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	3	2	7	3	14	0	13	2
7:15	11	1	3	1	13	0	27	0
7:30	14	1	16	1	23	1	32	1
7:45	14	1	14	1	23	0	22	3
8:00	7	0	11	1	17	1	30	0
8:15	12	0	7	1	19	0	28	0
8:30	7	1	6	0	19	1	18	1
8:45	6	1	5	1	19	0	26	2
9:00	4	0	2	1	17	0	24	1
9:15	3	1	8	0	13	0	28	0
9:30	13	0	7	1	20	0	35	0
9:45	6	0	5	0	17	0	26	1

Leg:	North		East		South		West	
Class:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	35	1	12	2	17	0	12	0
15:15	16	1	11	0	22	0	33	0
15:30	13	2	10	1	15	0	33	0
15:45	13	1	6	0	19	0	43	2
16:00	14	1	9	0	12	3	27	0
16:15	15	4	9	1	32	1	33	1
16:30	23	1	3	3	101	0	20	0
16:45	29	2	10	1	24	0	27	4
17:00	17	1	10	2	11	1	28	2
17:15	19	0	10	3	19	1	24	1
17:30	14	1	7	1	20	0	25	0
17:45	22	2	4	2	16	3	19	2

Turning Movement Count Report AM

Location ID: 26
North/South: Olive Street
East/West: 11th Street

Date: 05/21/19
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	0	0	0	12	18	0	0	224	20	0	0	0	274
7:15	0	0	0	9	23	0	0	299	16	0	0	0	347
7:30	0	0	0	14	22	0	0	342	20	0	0	0	398
7:45	0	0	0	16	14	0	0	356	18	0	0	0	404
8:00	0	0	0	19	29	0	0	336	20	0	0	0	404
8:15	0	0	0	19	28	0	0	357	21	0	0	0	425
8:30	0	0	0	11	32	0	0	363	26	0	0	0	432
8:45	0	0	0	14	28	0	0	402	21	0	0	0	465
9:00	0	0	0	13	32	0	0	340	23	0	0	0	408
9:15	0	0	0	16	29	0	0	311	23	0	0	0	379
9:30	0	0	0	18	32	1	1	265	25	0	0	0	342
9:45	0	0	0	18	24	0	0	252	28	0	0	0	322

Total Volume:	0	0	0	179	311	1	1	3847	261	0	0	0	4600
Approach %	0%	0%	0%	36%	63%	0%	0%	94%	6%	0%	0%	0%	

Peak Hr Begin:	8:15												
PHV	0	0	0	57	120	0	0	1462	91	0	0	0	1730
PHF	0.000			0.941			0.918			0.000			0.930

Turning Movement Count Report PM

Location ID: 26
North/South: Olive Street
East/West: 11th Street

Date: 05/21/19
City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	0	0	0	11	28	0	0	221	24	0	0	0	284
15:15	0	0	0	14	33	0	0	180	15	0	0	0	242
15:30	0	0	0	10	38	0	0	197	23	0	0	0	268
15:45	0	0	0	12	44	0	0	199	32	0	0	0	287
16:00	0	0	0	6	29	0	0	194	26	0	0	0	255
16:15	0	0	0	12	44	0	0	190	29	0	0	0	275
16:30	0	0	0	14	42	0	0	210	24	0	0	0	290
16:45	0	0	0	6	49	0	0	255	38	0	0	0	348
17:00	0	0	0	19	65	0	0	268	40	0	0	0	392
17:15	0	0	0	12	80	0	0	248	27	0	0	0	367
17:30	0	0	0	15	108	0	0	223	37	0	0	0	383
17:45	0	0	0	14	101	0	0	212	31	0	0	0	358

Total Volume:	0	0	0	145	661	0	0	2597	346	0	0	0	3749
Approach %	0%	0%	0%	18%	82%	0%	0%	88%	12%	0%	0%	0%	

Peak Hr Begin:	17:00												
PHV	0	0	0	60	354	0	0	951	135	0	0	0	1500
PHF	0.000			0.841			0.881			0.000			0.957

Prepared by City Count, LLC. (www.citycount.com)

Pedestrian/Bicycle Count Report

Leg:	North		East		South		West	
Class:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	12	1	16	0	7	1	15	0
7:15	10	0	14	0	7	0	12	0
7:30	14	1	11	0	6	1	11	0
7:45	17	1	20	0	11	0	13	1
8:00	7	0	16	1	8	1	9	0
8:15	2	0	6	1	6	1	8	0
8:30	4	0	6	1	8	0	6	0
8:45	6	1	6	0	16	0	9	0
9:00	4	0	7	0	8	0	11	1
9:15	9	0	7	0	7	0	12	0
9:30	7	0	10	0	18	0	8	0
9:45	4	0	7	0	15	0	11	0

Leg:	North		East		South		West	
Class:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	25	2	22	0	14	0	15	0
15:15	15	2	16	1	16	0	19	1
15:30	13	1	18	0	15	1	15	0
15:45	8	2	16	0	8	1	13	0
16:00	15	0	16	0	8	0	15	1
16:15	18	5	1	0	28	1	14	0
16:30	15	0	7	1	7	1	9	0
16:45	17	1	9	0	22	1	11	0
17:00	10	0	14	2	8	0	15	1
17:15	20	0	13	0	10	1	13	0
17:30	9	1	12	1	19	0	21	1
17:45	10	1	20	1	11	1	13	0

Turning Movement Count Report AM

Location ID: 27
North/South: Olive Street
East/West: 12th Street

Date: 10/26/17
City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	0	0	0	0	0	0	9	218	0	0	15	8	250
7:15	0	0	0	0	0	0	15	272	0	0	12	8	307
7:30	0	0	0	0	0	0	17	278	0	0	15	10	320
7:45	0	0	0	0	0	0	22	306	0	0	31	17	376
8:00	0	0	0	0	0	0	23	324	0	0	25	13	385
8:15	0	0	0	0	0	0	16	280	0	0	34	23	353
8:30	0	0	0	0	0	0	29	356	0	0	40	20	445
8:45	0	0	0	0	0	0	25	345	0	0	27	14	411
9:00	0	0	0	0	0	0	17	289	0	0	30	19	355
9:15	0	0	0	0	0	0	15	268	0	0	38	15	336
9:30	0	0	0	0	0	0	18	271	0	0	33	14	336
9:45	0	0	0	0	0	0	14	248	0	0	23	23	308

Total Volume:	0	0	0	0	0	0	220	3455	0	0	323	184	4182
Approach %	0%	0%	0%	0%	0%	0%	6%	94%	0%	0%	64%	36%	

Peak Hr Begin:	8:00												
PHV	0	0	0	0	0	0	93	1305	0	0	126	70	1594
PHF	0.000			0.000			0.908			0.817			0.896

Prepared by City Count, LLC. (www.citycount.com)

Turning Movement Count Report PM

Location ID: 27
North/South: Olive Street
East/West: 12th Street

Date: 10/26/17
City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	0	0	0	0	0	0	17	162	0	0	39	9	227
15:15	0	0	0	0	0	0	14	173	0	0	42	14	243
15:30	0	0	0	0	0	0	14	183	0	0	39	22	258
15:45	0	0	0	0	0	0	15	215	0	0	30	27	287
16:00	0	0	0	0	0	0	19	195	0	0	23	6	243
16:15	0	0	0	0	0	0	14	210	0	0	31	16	271
16:30	0	0	0	0	0	0	11	224	0	0	46	14	295
16:45	0	0	0	0	0	0	18	239	0	0	34	20	311
17:00	0	0	0	0	0	0	17	245	1	0	47	18	328
17:15	0	0	0	0	0	0	18	285	0	0	38	20	361
17:30	0	0	0	0	0	0	14	249	0	0	37	24	324
17:45	0	0	0	0	0	0	19	298	0	0	40	21	378

Total Volume:	0	0	0	0	0	0	190	2678	1	0	446	211	3526
Approach %	0%	0%	0%	0%	0%	0%	7%	93%	0%	0%	68%	32%	

Peak Hr Begin:	17:00												
PHV	0	0	0	0	0	0	68	1077	1	0	162	83	1391
PHF	0.000			0.000			0.904			0.942			0.920

Prepared by City Count, LLC. (www.citycount.com)

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	15	0	10	0	5	0	5	1
7:15	33	0	8	0	2	0	5	1
7:30	26	1	9	2	4	1	10	0
7:45	22	1	12	0	4	1	7	0
8:00	18	2	9	1	6	4	4	0
8:15	22	0	12	0	8	2	7	0
8:30	38	0	6	0	2	1	8	0
8:45	25	0	6	1	4	0	6	0
9:00	30	0	12	1	2	2	7	1
9:15	32	0	5	0	2	0	6	0
9:30	9	0	8	0	7	1	4	0
9:45	8	0	12	0	8	0	4	0

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	20	0	10	0	6	0	13	1
15:15	19	0	9	0	10	0	6	0
15:30	29	0	21	3	7	0	7	1
15:45	19	2	24	0	21	0	8	3
16:00	29	0	10	0	19	0	6	0
16:15	17	1	20	1	5	0	27	1
16:30	31	1	10	0	14	1	10	0
16:45	32	1	20	1	13	1	15	0
17:00	15	0	24	1	20	0	8	1
17:15	22	1	8	2	11	2	10	0
17:30	12	2	9	1	7	0	8	1
17:45	33	1	10	1	18	1	12	2

Turning Movement Count Report AM

Location ID: 28
North/South: Olive Street
East/West: Pico Boulevard

Date: 10/26/17
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	0	0	0	15	82	0	2	184	24	0	52	5	364
7:15	0	0	0	15	97	0	11	246	23	0	63	7	462
7:30	0	0	0	20	85	0	15	235	25	0	90	11	481
7:45	0	0	0	20	91	0	11	270	31	0	113	24	560
8:00	0	0	0	23	89	0	12	271	29	0	88	23	535
8:15	0	0	0	22	96	0	9	234	38	0	128	24	551
8:30	0	0	0	28	96	0	15	306	35	0	100	19	599
8:45	0	0	0	33	107	0	11	305	38	0	108	27	629
9:00	0	0	0	17	73	0	21	238	43	0	85	25	502
9:15	0	0	0	21	80	0	18	225	37	1	76	17	475
9:30	0	0	0	25	63	0	14	235	32	0	70	17	456
9:45	0	0	0	24	81	0	19	210	49	0	75	13	471

Total Volume:	0	0	0	263	1040	0	158	2959	404	1	1048	212	6085
Approach %	0%	0%	0%	20%	80%	0%	4%	84%	11%	0%	83%	17%	

Peak Hr Begin:	8:00												
PHV	0	0	0	106	388	0	47	1116	140	0	424	93	2314
PHF	0.000			0.882			0.915			0.850			0.920

Turning Movement Count Report PM

Location ID: 28
North/South: Olive Street
East/West: Pico Boulevard

Date: 10/26/17
City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	0	0	0	27	84	0	15	149	14	0	94	11	394
15:15	0	0	0	19	74	0	23	153	26	0	106	10	411
15:30	0	0	0	19	88	0	16	160	16	1	93	14	407
15:45	0	0	0	22	78	0	23	185	22	0	93	13	436
16:00	0	0	0	24	97	0	27	172	13	0	90	13	436
16:15	0	0	0	12	95	0	31	184	25	0	85	18	450
16:30	0	0	0	16	105	0	39	192	20	0	100	23	495
16:45	0	0	0	21	131	0	45	208	24	0	112	23	564
17:00	0	0	0	33	129	0	28	210	31	0	92	19	542
17:15	0	0	0	26	153	0	29	256	30	0	92	18	604
17:30	0	0	0	22	170	0	38	224	29	0	93	20	596
17:45	0	0	0	28	177	0	35	258	25	0	84	23	630

Total Volume:	0	0	0	269	1381	0	349	2351	275	1	1134	205	5965
Approach %	0%	0%	0%	16%	84%	0%	12%	79%	9%	0%	85%	15%	

Peak Hr Begin:	17:00												
PHV	0	0	0	109	629	0	130	948	115	0	361	80	2372
PHF	0.000			0.900			0.938			0.976			0.941

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	14	3	2	1	10	2	3	0
7:15	9	2	2	0	8	0	2	0
7:30	4	1	9	2	10	0	2	1
7:45	12	2	12	0	7	0	2	1
8:00	8	0	9	0	9	0	0	0
8:15	5	2	4	1	2	1	3	0
8:30	5	0	5	0	13	0	4	0
8:45	4	1	6	1	5	0	2	0
9:00	7	0	8	0	7	0	8	2
9:15	4	0	3	0	12	0	2	0
9:30	3	0	6	0	8	0	1	0
9:45	6	2	4	0	8	0	2	0

	North		East		South		West	
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	7	2	2	0	6	1	4	1
15:15	5	1	2	0	10	1	2	0
15:30	13	0	18	0	15	0	1	0
15:45	8	0	2	0	9	0	2	0
16:00	5	2	2	0	12	2	6	0
16:15	12	1	7	0	7	1	7	0
16:30	10	3	9	0	9	0	3	1
16:45	7	4	6	2	20	0	4	0
17:00	13	1	7	1	14	0	2	0
17:15	11	3	3	0	6	0	7	1
17:30	9	6	3	2	12	0	2	0
17:45	11	3	2	1	9	2	7	1

City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:
North/South Grand Ave

East/West 12th St

Day: Wednesday Date: March 1, 2017 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	0	166	83	0
BIKES	18	90	49	17
BUSES	0	240	35	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	0	0.00	147	7.45	56	7.45	0	0.00
PM PK 15 MIN	0	0.00	380	17.30	76	17.15	0	0.00
AM PK HOUR	0	0.00	570	7.15	199	8.15	0	0.00
PM PK HOUR	0	0.00	1438	16.45	241	17.00	0	0.00

NORTHBOUND Approach / **SOUTHBOUND Approach** / **TOTAL** / **XING S/L** / **XING N/L**

Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total	N-S	Ped	Sch	Ped	Sch
7-8	0	0	0	0	*7-8*	102	454	0	556	556	12	0	86	1
8-9	0	0	0	0	*8-9*	151	397	0	548	548	5	0	119	0
9-10	0	0	0	0	*9-10*	114	385	0	499	499	9	0	95	0
15-16	0	0	0	0	*15-16*	94	744	0	838	838	45	0	97	0
16-17	0	0	0	0	*16-17*	102	1190	0	1292	1292	32	0	102	3
17-18	0	0	0	0	*17-18*	88	1322	0	1410	1410	43	0	108	0
TOTAL	0	0	0	0	TOTAL	651	4492	0	5143	5143	146	0	607	4

EASTBOUND Approach / **WESTBOUND Approach** / **TOTAL** / **XING W/L** / **XING E/L**

Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total	E-W	Ped	Sch	Ped	Sch
7-8	0	94	54	148	*7-8*	0	0	0	0	148	43	1	11	0
8-9	0	123	69	192	*8-9*	0	0	0	0	192	48	4	5	0
9-10	0	121	70	191	*9-10*	0	0	0	0	191	45	4	8	0
15-16	0	106	75	181	*15-16*	0	0	0	0	181	63	1	13	0
16-17	0	104	83	187	*16-17*	0	0	0	0	187	50	3	15	0
17-18	0	146	95	241	*17-18*	0	0	0	0	241	85	1	15	0
TOTAL	0	694	446	1140	TOTAL	0	0	0	0	1140	334	14	67	0

Appendix C

HCM Delay Level of Service & Queuing Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	76	163	0	0	0	0	0	460	69
Future Volume (veh/h)	0	0	0	76	163	0	0	0	0	0	460	69
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				83	177	0				0	500	75
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				745	698	0				0	2615	812
Arrive On Green				0.37	0.37	0.00				0.00	0.51	0.51
Sat Flow, veh/h				1781	1870	0				0	5274	1585
Grp Volume(v), veh/h				83	177	0				0	500	75
Grp Sat Flow(s),veh/h/ln				1781	1870	0				0	1702	1585
Q Serve(g_s), s				2.8	5.9	0.0				0.0	4.8	2.2
Cycle Q Clear(g_c), s				2.8	5.9	0.0				0.0	4.8	2.2
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				745	698	0				0	2615	812
V/C Ratio(X)				0.11	0.25	0.00				0.00	0.19	0.09
Avail Cap(c_a), veh/h				745	698	0				0	2615	812
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				18.5	19.5	0.0				0.0	11.9	11.2
Incr Delay (d2), s/veh				0.3	0.9	0.0				0.0	0.2	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln				2.1	4.4	0.0				0.0	3.1	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				18.8	20.4	0.0				0.0	12.0	11.5
LnGrp LOS				B	C	A				A	B	B
Approach Vol, veh/h					260						575	
Approach Delay, s/veh					19.9						12.0	
Approach LOS					B						B	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	39.0	51.0
Change Period (Y+Rc), s	* 5.4	* 4.9
Max Green Setting (Gmax), s	* 34	* 46
Max Q Clear Time (g_c+I1), s	7.9	6.8
Green Ext Time (p_c), s	1.2	4.1

Intersection Summary	
HCM 6th Ctrl Delay	14.4
HCM 6th LOS	B

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	125	70	0	0	0	0	0	0	154	405	0
Future Volume (veh/h)	0	125	70	0	0	0	0	0	0	154	405	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	136	76							167	440	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	1433	757							335	793	0
Arrive On Green	0.00	0.64	0.64							0.23	0.23	0.00
Sat Flow, veh/h	0	2341	1186							1095	3676	0
Grp Volume(v), veh/h	0	106	106							231	376	0
Grp Sat Flow(s),veh/h/ln	0	1777	1657							1520	1549	0
Q Serve(g_s), s	0.0	1.6	1.7							9.7	7.5	0.0
Cycle Q Clear(g_c), s	0.0	1.6	1.7							9.7	7.5	0.0
Prop In Lane	0.00		0.72							0.72		0.00
Lane Grp Cap(c), veh/h	0	1133	1056							431	698	0
V/C Ratio(X)	0.00	0.09	0.10							0.54	0.54	0.00
Avail Cap(c_a), veh/h	0	1133	1056							875	1602	0
HCM Platoon Ratio	1.00	1.00	1.00							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							0.99	0.99	0.00
Uniform Delay (d), s/veh	0.0	4.9	4.9							24.8	23.9	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.2							1.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	0.0	0.9	0.9							5.4	4.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.1	5.1							25.8	24.6	0.0
LnGrp LOS	A	A	A							C	C	A
Approach Vol, veh/h		212									607	
Approach Delay, s/veh		5.1									25.0	
Approach LOS		A									C	

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		49.4		20.6								
Change Period (Y+Rc), s		* 4.8		* 4.8								
Max Green Setting (Gmax), s		* 24		* 36								
Max Q Clear Time (g_c+I1), s		3.7		11.7								
Green Ext Time (p_c), s		1.1		4.0								

Intersection Summary			
HCM 6th Ctrl Delay			19.9
HCM 6th LOS			B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	120	57	91	1462	0	0	0	0
Future Volume (veh/h)	0	0	0	0	120	57	91	1462	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	130	62	99	1589	0			
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	448	214	173	2292	0			
Arrive On Green				0.00	0.37	0.37	0.16	0.16	0.00			
Sat Flow, veh/h				0	1197	571	230	4818	0			
Grp Volume(v), veh/h				0	0	192	624	1064	0			
Grp Sat Flow(s),veh/h/ln				0	0	1768	1797	1549	0			
Q Serve(g_s), s				0.0	0.0	5.3	16.5	22.7	0.0			
Cycle Q Clear(g_c), s				0.0	0.0	5.3	22.9	22.7	0.0			
Prop In Lane				0.00		0.32	0.16		0.00			
Lane Grp Cap(c), veh/h				0	0	662	943	1522	0			
V/C Ratio(X)				0.00	0.00	0.29	0.66	0.70	0.00			
Avail Cap(c_a), veh/h				0	0	662	943	1522	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	0.0	15.4	24.4	24.4	0.0			
Incr Delay (d2), s/veh				0.0	0.0	1.1	3.7	2.7	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln				0.0	0.0	3.7	15.3	13.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	16.5	28.0	27.1	0.0			
LnGrp LOS				A	A	B	C	C	A			
Approach Vol, veh/h					192			1688				
Approach Delay, s/veh					16.5			27.5				
Approach LOS					B			C				

Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		31.0						39.0				
Change Period (Y+Rc), s		* 4.8						4.6				
Max Green Setting (Gmax), s		* 26						34.4				
Max Q Clear Time (g_c+I1), s		7.3						24.9				
Green Ext Time (p_c), s		1.0						7.0				

Intersection Summary		
HCM 6th Ctrl Delay		26.3
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	129	0	0	0	0	0	1331	95	0	0	0
Future Volume (veh/h)	71	129	0	0	0	0	0	1331	95	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	77	140	0				0	1447	103			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	497	912	0				0	2298	713			
Arrive On Green	0.42	0.42	0.00				0.00	0.45	0.45			
Sat Flow, veh/h	987	2271	0				0	5274	1585			
Grp Volume(v), veh/h	116	101	0				0	1447	103			
Grp Sat Flow(s),veh/h/ln	1555	1617	0				0	1702	1585			
Q Serve(g_s), s	2.1	2.7	0.0				0.0	15.2	2.7			
Cycle Q Clear(g_c), s	3.1	2.7	0.0				0.0	15.2	2.7			
Prop In Lane	0.66		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	734	674	0				0	2298	713			
V/C Ratio(X)	0.16	0.15	0.00				0.00	0.63	0.14			
Avail Cap(c_a), veh/h	734	674	0				0	2298	713			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.67	0.67			
Uniform Delay (d), s/veh	12.7	12.7	0.0				0.0	14.8	11.3			
Incr Delay (d2), s/veh	0.5	0.5	0.0				0.0	0.9	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	2.1	1.8	0.0				0.0	7.4	1.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.2	13.1	0.0				0.0	15.7	11.6			
LnGrp LOS	B	B	A				A	B	B			
Approach Vol, veh/h		217						1550				
Approach Delay, s/veh		13.2						15.4				
Approach LOS		B						B				

Timer - Assigned Phs	2	8
Phs Duration (G+Y+Rc), s	34.0	36.0
Change Period (Y+Rc), s	* 4.8	4.5
Max Green Setting (Gmax), s	* 29	31.5
Max Q Clear Time (g_c+I1), s	5.1	17.2
Green Ext Time (p_c), s	1.2	8.9

Intersection Summary	
HCM 6th Ctrl Delay	15.1
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	432	0	0	396	108	143	1138	48	0	0	0
Future Volume (veh/h)	95	432	0	0	396	108	143	1138	48	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	103	470	0	0	430	117	155	1237	52			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	268	1242	0	0	1433	386	202	1722	581			
Arrive On Green	0.52	0.52	0.00	0.00	0.52	0.52	0.37	0.37	0.37			
Sat Flow, veh/h	411	2483	0	0	2860	746	550	4697	1585			
Grp Volume(v), veh/h	267	306	0	0	275	272	519	873	52			
Grp Sat Flow(s),veh/h/ln	1192	1617	0	0	1777	1736	1843	1702	1585			
Q Serve(g_s), s	7.6	10.1	0.0	0.0	7.9	8.1	22.4	19.7	1.9			
Cycle Q Clear(g_c), s	15.7	10.1	0.0	0.0	7.9	8.1	22.4	19.7	1.9			
Prop In Lane	0.39		0.00	0.00		0.43	0.30		1.00			
Lane Grp Cap(c), veh/h	673	837	0	0	920	899	676	1248	581			
V/C Ratio(X)	0.40	0.37	0.00	0.00	0.30	0.30	0.77	0.70	0.09			
Avail Cap(c_a), veh/h	673	837	0	0	920	899	817	1509	703			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	14.3	12.9	0.0	0.0	12.4	12.4	25.1	24.3	18.7			
Incr Delay (d2), s/veh	0.4	0.3	0.0	0.0	0.8	0.9	3.7	1.1	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	5.4	5.5	0.0	0.0	5.0	5.0	13.4	10.7	1.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.7	13.2	0.0	0.0	13.2	13.3	28.8	25.4	18.7			
LnGrp LOS	B	B	A	A	B	B	C	C	B			
Approach Vol, veh/h		573			547			1444				
Approach Delay, s/veh		13.9			13.2			26.4				
Approach LOS		B			B			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		51.9				51.9		38.1				
Change Period (Y+Rc), s		* 5.3				* 5.3		5.1				
Max Green Setting (Gmax), s		* 40				* 40		39.9				
Max Q Clear Time (g_c+I1), s		10.1				17.7		24.4				
Green Ext Time (p_c), s		3.6				3.9		8.6				
Intersection Summary												
HCM 6th Ctrl Delay			20.8									
HCM 6th LOS			C									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
1: Grand Ave & 11th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	125	382	0	0	0	0	0	1383	151
Future Volume (veh/h)	0	0	0	125	382	0	0	0	0	0	1383	151
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				136	415	0				0	1503	164
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				765	719	0				0	2559	794
Arrive On Green				0.38	0.38	0.00				0.00	0.50	0.50
Sat Flow, veh/h				1781	1870	0				0	5274	1585
Grp Volume(v), veh/h				136	415	0				0	1503	164
Grp Sat Flow(s),veh/h/ln				1781	1870	0				0	1702	1585
Q Serve(g_s), s				4.6	15.8	0.0				0.0	18.7	5.2
Cycle Q Clear(g_c), s				4.6	15.8	0.0				0.0	18.7	5.2
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				765	719	0				0	2559	794
V/C Ratio(X)				0.18	0.58	0.00				0.00	0.59	0.21
Avail Cap(c_a), veh/h				765	719	0				0	2559	794
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				18.5	21.9	0.0				0.0	15.9	12.5
Incr Delay (d2), s/veh				0.5	3.4	0.0				0.0	1.0	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln				3.4	10.2	0.0				0.0	9.8	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				19.0	25.3	0.0				0.0	16.9	13.1
LnGrp LOS				B	C	A				A	B	B
Approach Vol, veh/h					551						1667	
Approach Delay, s/veh					23.7						16.5	
Approach LOS					C						B	

Timer - Assigned Phs		2		4
Phs Duration (G+Y+Rc), s		40.0		50.0
Change Period (Y+Rc), s		* 5.4		* 4.9
Max Green Setting (Gmax), s		* 35		* 45
Max Q Clear Time (g_c+I1), s		17.8		20.7
Green Ext Time (p_c), s		2.7		13.3

Intersection Summary			
HCM 6th Ctrl Delay			18.3
HCM 6th LOS			B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	149	97	0	0	0	0	0	0	90	1348	0
Future Volume (veh/h)	0	149	97	0	0	0	0	0	0	90	1348	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	162	105							98	1465	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	710	435							191	2592	0
Arrive On Green	0.00	0.34	0.34							0.18	0.18	0.00
Sat Flow, veh/h	0	2211	1297							258	4781	0
Grp Volume(v), veh/h	0	134	133							575	988	0
Grp Sat Flow(s),veh/h/ln	0	1777	1637							1788	1549	0
Q Serve(g_s), s	0.0	4.9	5.3							18.8	26.2	0.0
Cycle Q Clear(g_c), s	0.0	4.9	5.3							26.2	26.2	0.0
Prop In Lane	0.00		0.79							0.17		0.00
Lane Grp Cap(c), veh/h	0	596	549							1048	1735	0
V/C Ratio(X)	0.00	0.23	0.24							0.55	0.57	0.00
Avail Cap(c_a), veh/h	0	596	549							1048	1735	0
HCM Platoon Ratio	1.00	1.00	1.00							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							0.81	0.81	0.00
Uniform Delay (d), s/veh	0.0	21.5	21.6							26.7	26.8	0.0
Incr Delay (d2), s/veh	0.0	0.9	1.0							1.7	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	0.0	3.7	3.7							16.4	14.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	22.4	22.7							28.4	27.9	0.0
LnGrp LOS	A	C	C							C	C	A
Approach Vol, veh/h		267									1563	
Approach Delay, s/veh		22.5									28.1	
Approach LOS		C									C	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		35.0		55.0								
Change Period (Y+Rc), s		* 4.8		* 4.6								
Max Green Setting (Gmax), s		* 30		* 50								
Max Q Clear Time (g_c+I1), s		7.3		28.2								
Green Ext Time (p_c), s		1.5		11.9								
Intersection Summary												
HCM 6th Ctrl Delay			27.3									
HCM 6th LOS			C									
Notes												

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	354	60	135	951	0	0	0	0
Future Volume (veh/h)	0	0	0	0	354	60	135	951	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	385	65	147	1034	0			
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	615	104	330	2147	0			
Arrive On Green				0.00	0.39	0.39	0.17	0.17	0.00			
Sat Flow, veh/h				0	1560	263	547	4400	0			
Grp Volume(v), veh/h				0	0	450	425	756	0			
Grp Sat Flow(s),veh/h/ln				0	0	1823	1696	1549	0			
Q Serve(g_s), s				0.0	0.0	17.9	17.4	19.9	0.0			
Cycle Q Clear(g_c), s				0.0	0.0	17.9	20.3	19.9	0.0			
Prop In Lane				0.00		0.14	0.35		0.00			
Lane Grp Cap(c), veh/h				0	0	719	911	1566	0			
V/C Ratio(X)				0.00	0.00	0.63	0.47	0.48	0.00			
Avail Cap(c_a), veh/h				0	0	719	911	1566	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	0.0	21.9	26.9	26.8	0.0			
Incr Delay (d2), s/veh				0.0	0.0	4.1	1.7	1.1	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln				0.0	0.0	11.1	12.8	11.4	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	26.0	28.6	27.9	0.0			
LnGrp LOS				A	A	C	C	C	A			
Approach Vol, veh/h					450			1181				
Approach Delay, s/veh					26.0			28.1				
Approach LOS					C			C				

Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		40.0						50.0				
Change Period (Y+Rc), s		4.5						4.5				
Max Green Setting (Gmax), s		35.5						45.5				
Max Q Clear Time (g_c+I1), s		19.9						22.3				
Green Ext Time (p_c), s		2.6						8.7				

Intersection Summary			
HCM 6th Ctrl Delay			27.6
HCM 6th LOS			C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	165	0	0	0	0	0	1099	69	0	0	0
Future Volume (veh/h)	85	165	0	0	0	0	0	1099	69	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	92	179	0				0	1195	75			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	443	866	0				0	2581	801			
Arrive On Green	0.13	0.13	0.00				0.00	0.51	0.51			
Sat Flow, veh/h	964	2300	0				0	5274	1585			
Grp Volume(v), veh/h	143	128	0				0	1195	75			
Grp Sat Flow(s),veh/h/ln	1562	1617	0				0	1702	1585			
Q Serve(g_s), s	6.1	6.4	0.0				0.0	13.6	2.2			
Cycle Q Clear(g_c), s	7.2	6.4	0.0				0.0	13.6	2.2			
Prop In Lane	0.64		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	677	632	0				0	2581	801			
V/C Ratio(X)	0.21	0.20	0.00				0.00	0.46	0.09			
Avail Cap(c_a), veh/h	677	632	0				0	2581	801			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.71	0.71			
Uniform Delay (d), s/veh	26.9	26.6	0.0				0.0	14.4	11.5			
Incr Delay (d2), s/veh	0.7	0.7	0.0				0.0	0.4	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	4.8	4.4	0.0				0.0	7.0	1.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.6	27.3	0.0				0.0	14.8	11.7			
LnGrp LOS	C	C	A				A	B	B			
Approach Vol, veh/h		271						1270				
Approach Delay, s/veh		27.5						14.6				
Approach LOS		C						B				

Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		40.0						50.0				
Change Period (Y+Rc), s		* 4.8						4.5				
Max Green Setting (Gmax), s		* 35						45.5				
Max Q Clear Time (g_c+I1), s		9.2						15.6				
Green Ext Time (p_c), s		1.5						10.8				

Intersection Summary			
HCM 6th Ctrl Delay			16.9
HCM 6th LOS			B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	368	0	0	642	111	117	967	133	0	0	0
Future Volume (veh/h)	82	368	0	0	642	111	117	967	133	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	89	400	0	0	698	121	127	1051	145			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	252	1234	0	0	1709	296	170	1509	507			
Arrive On Green	1.00	1.00	0.00	0.00	0.56	0.56	0.32	0.32	0.32			
Sat Flow, veh/h	346	2271	0	0	3122	525	533	4715	1585			
Grp Volume(v), veh/h	210	279	0	0	409	410	440	738	145			
Grp Sat Flow(s),veh/h/ln	915	1617	0	0	1777	1776	1844	1702	1585			
Q Serve(g_s), s	4.9	0.0	0.0	0.0	11.7	11.8	19.2	17.0	6.2			
Cycle Q Clear(g_c), s	16.6	0.0	0.0	0.0	11.7	11.8	19.2	17.0	6.2			
Prop In Lane	0.42		0.00	0.00		0.30	0.29		1.00			
Lane Grp Cap(c), veh/h	573	913	0	0	1003	1002	590	1089	507			
V/C Ratio(X)	0.37	0.31	0.00	0.00	0.41	0.41	0.74	0.68	0.29			
Avail Cap(c_a), veh/h	573	913	0	0	1003	1002	756	1396	650			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	1.2	0.0	0.0	0.0	11.1	11.1	27.3	26.6	22.9			
Incr Delay (d2), s/veh	0.4	0.2	0.0	0.0	1.2	1.2	3.0	0.9	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	0.1	0.1	0.0	0.0	6.8	6.8	11.7	9.5	3.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1.6	0.2	0.0	0.0	12.3	12.3	30.3	27.5	23.2			
LnGrp LOS	A	A	A	A	B	B	C	C	C			
Approach Vol, veh/h		489			819			1323				
Approach Delay, s/veh		0.8			12.3			27.9				
Approach LOS		A			B			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		56.1				56.1		33.9				
Change Period (Y+Rc), s		* 5.3				* 5.3		5.1				
Max Green Setting (Gmax), s		* 43				* 43		36.9				
Max Q Clear Time (g_c+I1), s		13.8				18.6		21.2				
Green Ext Time (p_c), s		5.9				3.6		7.6				

Intersection Summary			
HCM 6th Ctrl Delay			18.0
HCM 6th LOS			B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	87	175	0	0	0	0	0	464	69
Future Volume (veh/h)	0	0	0	87	175	0	0	0	0	0	464	69
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				95	190	0				0	504	75
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				745	698	0				0	2615	812
Arrive On Green				0.37	0.37	0.00				0.00	0.51	0.51
Sat Flow, veh/h				1781	1870	0				0	5274	1585
Grp Volume(v), veh/h				95	190	0				0	504	75
Grp Sat Flow(s),veh/h/ln				1781	1870	0				0	1702	1585
Q Serve(g_s), s				3.2	6.4	0.0				0.0	4.8	2.2
Cycle Q Clear(g_c), s				3.2	6.4	0.0				0.0	4.8	2.2
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				745	698	0				0	2615	812
V/C Ratio(X)				0.13	0.27	0.00				0.00	0.19	0.09
Avail Cap(c_a), veh/h				745	698	0				0	2615	812
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				18.7	19.7	0.0				0.0	11.9	11.2
Incr Delay (d2), s/veh				0.4	1.0	0.0				0.0	0.2	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln				2.4	4.7	0.0				0.0	3.2	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				19.0	20.6	0.0				0.0	12.0	11.5
LnGrp LOS				B	C	A				A	B	B
Approach Vol, veh/h					285						579	
Approach Delay, s/veh					20.1						12.0	
Approach LOS					C						B	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	39.0	51.0
Change Period (Y+Rc), s	* 5.4	* 4.9
Max Green Setting (Gmax), s	* 34	* 46
Max Q Clear Time (g_c+I1), s	8.4	6.8
Green Ext Time (p_c), s	1.3	4.1

Intersection Summary	
HCM 6th Ctrl Delay	14.6
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	132	70	0	0	0	0	0	0	158	416	0
Future Volume (veh/h)	0	132	70	0	0	0	0	0	0	158	416	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	143	76							172	452	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	1447	729							342	809	0
Arrive On Green	0.00	0.63	0.63							0.23	0.23	0.00
Sat Flow, veh/h	0	2381	1153							1102	3668	0
Grp Volume(v), veh/h	0	109	110							237	387	0
Grp Sat Flow(s),veh/h/ln	0	1777	1663							1518	1549	0
Q Serve(g_s), s	0.0	1.7	1.8							10.0	7.7	0.0
Cycle Q Clear(g_c), s	0.0	1.7	1.8							10.0	7.7	0.0
Prop In Lane	0.00		0.69							0.73		0.00
Lane Grp Cap(c), veh/h	0	1124	1052							438	713	0
V/C Ratio(X)	0.00	0.10	0.10							0.54	0.54	0.00
Avail Cap(c_a), veh/h	0	1124	1052							874	1602	0
HCM Platoon Ratio	1.00	1.00	1.00							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							0.99	0.99	0.00
Uniform Delay (d), s/veh	0.0	5.0	5.1							24.6	23.7	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.2							1.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	0.0	1.0	1.0							5.5	4.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.2	5.3							25.6	24.3	0.0
LnGrp LOS	A	A	A							C	C	A
Approach Vol, veh/h		219									624	
Approach Delay, s/veh		5.2									24.8	
Approach LOS		A									C	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		49.1		20.9								
Change Period (Y+Rc), s		* 4.8		* 4.8								
Max Green Setting (Gmax), s		* 24		* 36								
Max Q Clear Time (g_c+I1), s		3.8		12.0								
Green Ext Time (p_c), s		1.2		4.2								
Intersection Summary												
HCM 6th Ctrl Delay			19.7									
HCM 6th LOS			B									
Notes												

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	126	57	116	1498	0	0	0	0
Future Volume (veh/h)	0	0	0	0	126	57	116	1498	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	137	62	126	1628	0			
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	456	207	209	2247	0			
Arrive On Green				0.00	0.37	0.37	0.16	0.16	0.00			
Sat Flow, veh/h				0	1219	552	299	4726	0			
Grp Volume(v), veh/h				0	0	199	645	1109	0			
Grp Sat Flow(s),veh/h/ln				0	0	1771	1775	1549	0			
Q Serve(g_s), s				0.0	0.0	5.5	19.7	23.8	0.0			
Cycle Q Clear(g_c), s				0.0	0.0	5.5	24.1	23.8	0.0			
Prop In Lane				0.00		0.31	0.20		0.00			
Lane Grp Cap(c), veh/h				0	0	663	934	1522	0			
V/C Ratio(X)				0.00	0.00	0.30	0.69	0.73	0.00			
Avail Cap(c_a), veh/h				0	0	663	934	1522	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	0.0	15.4	24.9	24.9	0.0			
Incr Delay (d2), s/veh				0.0	0.0	1.2	4.2	3.1	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln				0.0	0.0	3.9	16.0	13.6	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	16.6	29.1	28.0	0.0			
LnGrp LOS				A	A	B	C	C	A			
Approach Vol, veh/h					199			1754				
Approach Delay, s/veh					16.6			28.4				
Approach LOS					B			C				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		31.0						39.0				
Change Period (Y+Rc), s		* 4.8						4.6				
Max Green Setting (Gmax), s		* 26						34.4				
Max Q Clear Time (g_c+I1), s		7.5						26.1				
Green Ext Time (p_c), s		1.0						6.4				
Intersection Summary												
HCM 6th Ctrl Delay			27.2									
HCM 6th LOS			C									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	168	0	0	0	0	0	1354	95	0	0	0
Future Volume (veh/h)	82	168	0	0	0	0	0	1354	95	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	89	183	0				0	1472	103			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	467	948	0				0	2298	713			
Arrive On Green	0.14	0.14	0.00				0.00	0.45	0.45			
Sat Flow, veh/h	920	2358	0				0	5274	1585			
Grp Volume(v), veh/h	145	127	0				0	1472	103			
Grp Sat Flow(s),veh/h/ln	1576	1617	0				0	1702	1585			
Q Serve(g_s), s	4.3	4.9	0.0				0.0	15.6	2.7			
Cycle Q Clear(g_c), s	5.5	4.9	0.0				0.0	15.6	2.7			
Prop In Lane	0.62		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	741	674	0				0	2298	713			
V/C Ratio(X)	0.20	0.19	0.00				0.00	0.64	0.14			
Avail Cap(c_a), veh/h	741	674	0				0	2298	713			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.67	0.67			
Uniform Delay (d), s/veh	19.9	19.7	0.0				0.0	14.9	11.3			
Incr Delay (d2), s/veh	0.6	0.6	0.0				0.0	0.9	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	3.7	3.4	0.0				0.0	7.6	1.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	20.3	0.0				0.0	15.8	11.6			
LnGrp LOS	C	C	A				A	B	B			
Approach Vol, veh/h		272						1575				
Approach Delay, s/veh		20.4						15.5				
Approach LOS		C						B				

Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		34.0						36.0				
Change Period (Y+Rc), s		* 4.8						4.5				
Max Green Setting (Gmax), s		* 29						31.5				
Max Q Clear Time (g_c+I1), s		7.5						17.6				
Green Ext Time (p_c), s		1.5						8.9				

Intersection Summary			
HCM 6th Ctrl Delay			16.2
HCM 6th LOS			B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	432	0	0	400	120	143	1148	48	0	0	0
Future Volume (veh/h)	96	432	0	0	400	120	143	1148	48	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	104	470	0	0	435	130	155	1248	52			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	265	1224	0	0	1394	413	201	1733	584			
Arrive On Green	0.52	0.52	0.00	0.00	0.52	0.52	0.37	0.37	0.37			
Sat Flow, veh/h	406	2459	0	0	2796	800	546	4701	1585			
Grp Volume(v), veh/h	266	308	0	0	285	280	523	880	52			
Grp Sat Flow(s),veh/h/ln	1163	1617	0	0	1777	1726	1843	1702	1585			
Q Serve(g_s), s	8.0	10.3	0.0	0.0	8.3	8.4	22.5	19.8	1.9			
Cycle Q Clear(g_c), s	16.4	10.3	0.0	0.0	8.3	8.4	22.5	19.8	1.9			
Prop In Lane	0.39		0.00	0.00		0.46	0.30		1.00			
Lane Grp Cap(c), veh/h	656	834	0	0	917	891	679	1255	584			
V/C Ratio(X)	0.41	0.37	0.00	0.00	0.31	0.31	0.77	0.70	0.09			
Avail Cap(c_a), veh/h	656	834	0	0	917	891	817	1509	703			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	14.7	13.0	0.0	0.0	12.6	12.6	25.1	24.2	18.5			
Incr Delay (d2), s/veh	0.4	0.3	0.0	0.0	0.9	0.9	3.7	1.2	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	5.5	5.5	0.0	0.0	5.3	5.2	13.5	10.8	1.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.1	13.3	0.0	0.0	13.4	13.5	28.8	25.3	18.6			
LnGrp LOS	B	B	A	A	B	B	C	C	B			
Approach Vol, veh/h		574			565			1455				
Approach Delay, s/veh		14.1			13.5			26.3				
Approach LOS		B			B			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		51.7				51.7		38.3				
Change Period (Y+Rc), s		* 5.3				* 5.3		5.1				
Max Green Setting (Gmax), s		* 40				* 40		39.9				
Max Q Clear Time (g_c+I1), s		10.4				18.4		24.5				
Green Ext Time (p_c), s		3.8				3.9		8.6				
Intersection Summary												
HCM 6th Ctrl Delay			20.8									
HCM 6th LOS			C									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	132	390	0	0	0	0	0	1394	151
Future Volume (veh/h)	0	0	0	132	390	0	0	0	0	0	1394	151
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				143	424	0				0	1515	164
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				765	719	0				0	2559	794
Arrive On Green				0.38	0.38	0.00				0.00	0.50	0.50
Sat Flow, veh/h				1781	1870	0				0	5274	1585
Grp Volume(v), veh/h				143	424	0				0	1515	164
Grp Sat Flow(s),veh/h/ln				1781	1870	0				0	1702	1585
Q Serve(g_s), s				4.8	16.2	0.0				0.0	18.9	5.2
Cycle Q Clear(g_c), s				4.8	16.2	0.0				0.0	18.9	5.2
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				765	719	0				0	2559	794
V/C Ratio(X)				0.19	0.59	0.00				0.00	0.59	0.21
Avail Cap(c_a), veh/h				765	719	0				0	2559	794
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				18.5	22.0	0.0				0.0	15.9	12.5
Incr Delay (d2), s/veh				0.5	3.5	0.0				0.0	1.0	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln				3.5	10.4	0.0				0.0	9.9	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				19.1	25.6	0.0				0.0	16.9	13.1
LnGrp LOS				B	C	A				A	B	B
Approach Vol, veh/h					567						1679	
Approach Delay, s/veh					23.9						16.6	
Approach LOS					C						B	

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		40.0		50.0								
Change Period (Y+Rc), s		* 5.4		* 4.9								
Max Green Setting (Gmax), s		* 35		* 45								
Max Q Clear Time (g_c+I1), s		18.2		20.9								
Green Ext Time (p_c), s		2.8		13.4								

Intersection Summary		
HCM 6th Ctrl Delay		18.4
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	167	97	0	0	0	0	0	0	101	1355	0
Future Volume (veh/h)	0	167	97	0	0	0	0	0	0	101	1355	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	182	105							110	1473	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	742	408							212	2565	0
Arrive On Green	0.00	0.34	0.34							0.18	0.18	0.00
Sat Flow, veh/h	0	2305	1216							293	4734	0
Grp Volume(v), veh/h	0	144	143							580	1003	0
Grp Sat Flow(s),veh/h/ln	0	1777	1651							1777	1549	0
Q Serve(g_s), s	0.0	5.3	5.6							20.5	26.6	0.0
Cycle Q Clear(g_c), s	0.0	5.3	5.6							26.7	26.6	0.0
Prop In Lane	0.00		0.74							0.19		0.00
Lane Grp Cap(c), veh/h	0	596	554							1042	1735	0
V/C Ratio(X)	0.00	0.24	0.26							0.56	0.58	0.00
Avail Cap(c_a), veh/h	0	596	554							1042	1735	0
HCM Platoon Ratio	1.00	1.00	1.00							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							0.81	0.81	0.00
Uniform Delay (d), s/veh	0.0	21.6	21.7							26.9	27.0	0.0
Incr Delay (d2), s/veh	0.0	1.0	1.1							1.7	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	0.0	3.9	3.9							16.5	14.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	22.6	22.9							28.6	28.1	0.0
LnGrp LOS	A	C	C							C	C	A
Approach Vol, veh/h		287									1583	
Approach Delay, s/veh		22.7									28.3	
Approach LOS		C									C	

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		35.0		55.0								
Change Period (Y+Rc), s		* 4.8		* 4.6								
Max Green Setting (Gmax), s		* 30		* 50								
Max Q Clear Time (g_c+I1), s		7.6		28.7								
Green Ext Time (p_c), s		1.7		11.9								

Intersection Summary			
HCM 6th Ctrl Delay			27.4
HCM 6th LOS			C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: Olive Street/Olive St & 11th St/11th Street

10/24/2019

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	371	60	152	975	0	0	0	0
Future Volume (veh/h)	0	0	0	0	371	60	152	975	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	403	65	165	1060	0			
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	620	100	359	2110	0			
Arrive On Green				0.00	0.39	0.39	0.17	0.17	0.00			
Sat Flow, veh/h				0	1571	253	602	4327	0			
Grp Volume(v), veh/h				0	0	468	438	787	0			
Grp Sat Flow(s),veh/h/ln				0	0	1825	1678	1549	0			
Q Serve(g_s), s				0.0	0.0	18.8	19.3	20.8	0.0			
Cycle Q Clear(g_c), s				0.0	0.0	18.8	21.3	20.8	0.0			
Prop In Lane				0.00		0.14	0.38		0.00			
Lane Grp Cap(c), veh/h				0	0	720	903	1566	0			
V/C Ratio(X)				0.00	0.00	0.65	0.48	0.50	0.00			
Avail Cap(c_a), veh/h				0	0	720	903	1566	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	0.0	22.2	27.3	27.2	0.0			
Incr Delay (d2), s/veh				0.0	0.0	4.5	1.9	1.2	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln				0.0	0.0	11.7	13.3	11.9	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	26.7	29.2	28.4	0.0			
LnGrp LOS				A	A	C	C	C	A			
Approach Vol, veh/h					468			1225				
Approach Delay, s/veh					26.7			28.6				
Approach LOS					C			C				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		40.0						50.0				
Change Period (Y+Rc), s		4.5						4.5				
Max Green Setting (Gmax), s		35.5						45.5				
Max Q Clear Time (g_c+I1), s		20.8						23.3				
Green Ext Time (p_c), s		2.6						8.9				
Intersection Summary												
HCM 6th Ctrl Delay			28.1									
HCM 6th LOS			C									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	191	0	0	0	0	0	1159	69	0	0	0
Future Volume (veh/h)	113	191	0	0	0	0	0	1159	69	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	123	208	0				0	1260	75			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	481	820	0				0	2581	801			
Arrive On Green	0.13	0.13	0.00				0.00	0.51	0.51			
Sat Flow, veh/h	1054	2181	0				0	5274	1585			
Grp Volume(v), veh/h	174	157	0				0	1260	75			
Grp Sat Flow(s),veh/h/ln	1534	1617	0				0	1702	1585			
Q Serve(g_s), s	8.3	7.9	0.0				0.0	14.6	2.2			
Cycle Q Clear(g_c), s	9.1	7.9	0.0				0.0	14.6	2.2			
Prop In Lane	0.71		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	668	632	0				0	2581	801			
V/C Ratio(X)	0.26	0.25	0.00				0.00	0.49	0.09			
Avail Cap(c_a), veh/h	668	632	0				0	2581	801			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.70	0.70			
Uniform Delay (d), s/veh	27.7	27.3	0.0				0.0	14.6	11.5			
Incr Delay (d2), s/veh	0.9	0.9	0.0				0.0	0.5	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	5.9	5.3	0.0				0.0	7.4	1.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.7	28.2	0.0				0.0	15.1	11.7			
LnGrp LOS	C	C	A				A	B	B			
Approach Vol, veh/h		331						1335				
Approach Delay, s/veh		28.5						14.9				
Approach LOS		C						B				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		40.0						50.0				
Change Period (Y+Rc), s		* 4.8						4.5				
Max Green Setting (Gmax), s		* 35						45.5				
Max Q Clear Time (g_c+I1), s		11.1						16.6				
Green Ext Time (p_c), s		1.9						11.4				

Intersection Summary		
HCM 6th Ctrl Delay		17.6
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	368	0	0	645	143	117	993	133	0	0	0
Future Volume (veh/h)	84	368	0	0	645	143	117	993	133	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	91	400	0	0	701	155	127	1079	145			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	245	1194	0	0	1617	357	169	1539	516			
Arrive On Green	1.00	1.00	0.00	0.00	0.56	0.56	0.33	0.33	0.33			
Sat Flow, veh/h	336	2221	0	0	2986	639	520	4728	1585			
Grp Volume(v), veh/h	206	285	0	0	430	426	450	756	145			
Grp Sat Flow(s),veh/h/ln	855	1617	0	0	1777	1755	1844	1702	1585			
Q Serve(g_s), s	5.8	0.0	0.0	0.0	12.7	12.7	19.6	17.3	6.1			
Cycle Q Clear(g_c), s	18.5	0.0	0.0	0.0	12.7	12.7	19.6	17.3	6.1			
Prop In Lane	0.44		0.00	0.00		0.36	0.28		1.00			
Lane Grp Cap(c), veh/h	535	904	0	0	993	981	600	1108	516			
V/C Ratio(X)	0.39	0.32	0.00	0.00	0.43	0.43	0.75	0.68	0.28			
Avail Cap(c_a), veh/h	535	904	0	0	993	981	756	1396	650			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	1.6	0.0	0.0	0.0	11.6	11.6	27.1	26.3	22.5			
Incr Delay (d2), s/veh	0.5	0.2	0.0	0.0	1.4	1.4	3.2	1.0	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	0.1	0.1	0.0	0.0	7.3	7.3	12.0	9.7	3.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.1	0.2	0.0	0.0	12.9	13.0	30.3	27.3	22.8			
LnGrp LOS	A	A	A	A	B	B	C	C	C			
Approach Vol, veh/h		491			856			1351				
Approach Delay, s/veh		1.0			12.9			27.8				
Approach LOS		A			B			C				

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		55.6				55.6		34.4				
Change Period (Y+Rc), s		* 5.3				* 5.3		5.1				
Max Green Setting (Gmax), s		* 43				* 43		36.9				
Max Q Clear Time (g_c+I1), s		14.7				20.5		21.6				
Green Ext Time (p_c), s		6.2				3.6		7.7				

Intersection Summary			
HCM 6th Ctrl Delay			18.2
HCM 6th LOS			B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	126	225	0	0	0	0	0	471	69
Future Volume (veh/h)	0	0	0	126	225	0	0	0	0	0	471	69
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				137	245	0				0	512	75
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				745	698	0				0	2615	812
Arrive On Green				0.37	0.37	0.00				0.00	0.51	0.51
Sat Flow, veh/h				1781	1870	0				0	5274	1585
Grp Volume(v), veh/h				137	245	0				0	512	75
Grp Sat Flow(s),veh/h/ln				1781	1870	0				0	1702	1585
Q Serve(g_s), s				4.7	8.5	0.0				0.0	4.9	2.2
Cycle Q Clear(g_c), s				4.7	8.5	0.0				0.0	4.9	2.2
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				745	698	0				0	2615	812
V/C Ratio(X)				0.18	0.35	0.00				0.00	0.20	0.09
Avail Cap(c_a), veh/h				745	698	0				0	2615	812
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				19.1	20.3	0.0				0.0	11.9	11.2
Incr Delay (d2), s/veh				0.5	1.4	0.0				0.0	0.2	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln				3.5	5.9	0.0				0.0	3.2	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				19.7	21.7	0.0				0.0	12.1	11.5
LnGrp LOS				B	C	A				A	B	B
Approach Vol, veh/h					382						587	
Approach Delay, s/veh					21.0						12.0	
Approach LOS					C						B	

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		39.0		51.0								
Change Period (Y+Rc), s		* 5.4		* 4.9								
Max Green Setting (Gmax), s		* 34		* 46								
Max Q Clear Time (g_c+I1), s		10.5		6.9								
Green Ext Time (p_c), s		1.8		4.2								

Intersection Summary	
HCM 6th Ctrl Delay	15.5
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	153	70	0	0	0	0	0	0	172	448	0
Future Volume (veh/h)	0	153	70	0	0	0	0	0	0	172	448	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	166	76							187	487	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	1485	651							363	857	0
Arrive On Green	0.00	0.62	0.62							0.25	0.25	0.00
Sat Flow, veh/h	0	2497	1054							1116	3649	0
Grp Volume(v), veh/h	0	121	121							254	420	0
Grp Sat Flow(s),veh/h/ln	0	1777	1681							1514	1549	0
Q Serve(g_s), s	0.0	2.0	2.1							10.6	8.3	0.0
Cycle Q Clear(g_c), s	0.0	2.0	2.1							10.6	8.3	0.0
Prop In Lane	0.00		0.63							0.74		0.00
Lane Grp Cap(c), veh/h	0	1098	1038							460	759	0
V/C Ratio(X)	0.00	0.11	0.12							0.55	0.55	0.00
Avail Cap(c_a), veh/h	0	1098	1038							872	1602	0
HCM Platoon Ratio	1.00	1.00	1.00							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							0.99	0.99	0.00
Uniform Delay (d), s/veh	0.0	5.5	5.5							24.0	23.1	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.2							1.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	0.0	1.2	1.2							5.7	4.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.7	5.7							25.0	23.7	0.0
LnGrp LOS	A	A	A							C	C	A
Approach Vol, veh/h		242									674	
Approach Delay, s/veh		5.7									24.2	
Approach LOS		A									C	

Timer - Assigned Phs		2		4
Phs Duration (G+Y+Rc), s		48.0		22.0
Change Period (Y+Rc), s		* 4.8		* 4.8
Max Green Setting (Gmax), s		* 24		* 36
Max Q Clear Time (g_c+I1), s		4.1		12.6
Green Ext Time (p_c), s		1.3		4.5

Intersection Summary	
HCM 6th Ctrl Delay	19.3
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	126	57	205	1544	0	0	0	0
Future Volume (veh/h)	0	0	0	0	126	57	205	1544	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	137	62	223	1678	0			
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	456	207	332	2093	0			
Arrive On Green				0.00	0.37	0.37	0.16	0.16	0.00			
Sat Flow, veh/h				0	1219	552	537	4413	0			
Grp Volume(v), veh/h				0	0	199	688	1213	0			
Grp Sat Flow(s),veh/h/ln				0	0	1771	1699	1549	0			
Q Serve(g_s), s				0.0	0.0	5.5	26.7	26.4	0.0			
Cycle Q Clear(g_c), s				0.0	0.0	5.5	27.4	26.4	0.0			
Prop In Lane				0.00		0.31	0.32		0.00			
Lane Grp Cap(c), veh/h				0	0	663	903	1522	0			
V/C Ratio(X)				0.00	0.00	0.30	0.76	0.80	0.00			
Avail Cap(c_a), veh/h				0	0	663	903	1522	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	0.0	15.4	26.4	26.0	0.0			
Incr Delay (d2), s/veh				0.0	0.0	1.2	6.0	4.4	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln				0.0	0.0	3.9	17.5	15.2	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	16.6	32.4	30.4	0.0			
LnGrp LOS				A	A	B	C	C	A			
Approach Vol, veh/h					199			1901				
Approach Delay, s/veh					16.6			31.1				
Approach LOS					B			C				

Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		31.0						39.0				
Change Period (Y+Rc), s		* 4.8						4.6				
Max Green Setting (Gmax), s		* 26						34.4				
Max Q Clear Time (g_c+I1), s		7.5						29.4				
Green Ext Time (p_c), s		1.0						4.2				

Intersection Summary			
HCM 6th Ctrl Delay			29.7
HCM 6th LOS			C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	175	0	0	0	0	0	1372	95	0	0	0
Future Volume (veh/h)	110	175	0	0	0	0	0	1372	95	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	120	190	0				0	1491	103			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	539	861	0				0	2298	713			
Arrive On Green	0.14	0.14	0.00				0.00	0.45	0.45			
Sat Flow, veh/h	1080	2148	0				0	5274	1585			
Grp Volume(v), veh/h	164	146	0				0	1491	103			
Grp Sat Flow(s),veh/h/ln	1525	1617	0				0	1702	1585			
Q Serve(g_s), s	5.9	5.6	0.0				0.0	15.9	2.7			
Cycle Q Clear(g_c), s	6.6	5.6	0.0				0.0	15.9	2.7			
Prop In Lane	0.73		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	725	674	0				0	2298	713			
V/C Ratio(X)	0.23	0.22	0.00				0.00	0.65	0.14			
Avail Cap(c_a), veh/h	725	674	0				0	2298	713			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.67	0.67			
Uniform Delay (d), s/veh	20.4	20.0	0.0				0.0	15.0	11.3			
Incr Delay (d2), s/veh	0.7	0.7	0.0				0.0	1.0	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	4.2	3.8	0.0				0.0	7.7	1.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.1	20.7	0.0				0.0	15.9	11.6			
LnGrp LOS	C	C	A				A	B	B			
Approach Vol, veh/h		310						1594				
Approach Delay, s/veh		20.9						15.6				
Approach LOS		C						B				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		34.0						36.0				
Change Period (Y+Rc), s		* 4.8						4.5				
Max Green Setting (Gmax), s		* 29						31.5				
Max Q Clear Time (g_c+I1), s		8.6						17.9				
Green Ext Time (p_c), s		1.7						8.8				
Intersection Summary												
HCM 6th Ctrl Delay			16.5									
HCM 6th LOS			B									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	432	0	0	400	127	143	1159	48	0	0	0
Future Volume (veh/h)	96	432	0	0	400	127	143	1159	48	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	104	470	0	0	435	138	155	1260	52			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	263	1215	0	0	1367	430	201	1745	588			
Arrive On Green	0.51	0.51	0.00	0.00	0.51	0.51	0.37	0.37	0.37			
Sat Flow, veh/h	403	2451	0	0	2754	836	541	4706	1585			
Grp Volume(v), veh/h	265	309	0	0	289	284	528	887	52			
Grp Sat Flow(s),veh/h/ln	1151	1617	0	0	1777	1720	1843	1702	1585			
Q Serve(g_s), s	8.1	10.3	0.0	0.0	8.5	8.6	22.7	20.0	1.9			
Cycle Q Clear(g_c), s	16.8	10.3	0.0	0.0	8.5	8.6	22.7	20.0	1.9			
Prop In Lane	0.39		0.00	0.00		0.49	0.29		1.00			
Lane Grp Cap(c), veh/h	647	831	0	0	913	884	683	1262	588			
V/C Ratio(X)	0.41	0.37	0.00	0.00	0.32	0.32	0.77	0.70	0.09			
Avail Cap(c_a), veh/h	647	831	0	0	913	884	817	1509	703			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	14.9	13.2	0.0	0.0	12.7	12.7	25.0	24.1	18.4			
Incr Delay (d2), s/veh	0.4	0.3	0.0	0.0	0.9	1.0	3.8	1.2	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	5.5	5.6	0.0	0.0	5.4	5.3	13.6	10.8	1.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.3	13.4	0.0	0.0	13.6	13.7	28.8	25.3	18.5			
LnGrp LOS	B	B	A	A	B	B	C	C	B			
Approach Vol, veh/h		574			573			1467				
Approach Delay, s/veh		14.3			13.7			26.3				
Approach LOS		B			B			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		51.5				51.5		38.5				
Change Period (Y+Rc), s		* 5.3				* 5.3		5.1				
Max Green Setting (Gmax), s		* 40				* 40		39.9				
Max Q Clear Time (g_c+I1), s		10.6				18.8		24.7				
Green Ext Time (p_c), s		3.8				3.9		8.6				
Intersection Summary												
HCM 6th Ctrl Delay			20.9									
HCM 6th LOS			C									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	158	423	0	0	0	0	0	1411	151
Future Volume (veh/h)	0	0	0	158	423	0	0	0	0	0	1411	151
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				172	460	0				0	1534	164
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				765	719	0				0	2559	794
Arrive On Green				0.38	0.38	0.00				0.00	0.50	0.50
Sat Flow, veh/h				1781	1870	0				0	5274	1585
Grp Volume(v), veh/h				172	460	0				0	1534	164
Grp Sat Flow(s),veh/h/ln				1781	1870	0				0	1702	1585
Q Serve(g_s), s				5.9	18.1	0.0				0.0	19.3	5.2
Cycle Q Clear(g_c), s				5.9	18.1	0.0				0.0	19.3	5.2
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				765	719	0				0	2559	794
V/C Ratio(X)				0.22	0.64	0.00				0.00	0.60	0.21
Avail Cap(c_a), veh/h				765	719	0				0	2559	794
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				18.9	22.6	0.0				0.0	16.0	12.5
Incr Delay (d2), s/veh				0.7	4.3	0.0				0.0	1.0	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln				4.2	11.5	0.0				0.0	10.1	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				19.6	26.9	0.0				0.0	17.1	13.1
LnGrp LOS				B	C	A				A	B	B
Approach Vol, veh/h					632						1698	
Approach Delay, s/veh					24.9						16.7	
Approach LOS					C						B	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		40.0		50.0								
Change Period (Y+Rc), s		* 5.4		* 4.9								
Max Green Setting (Gmax), s		* 35		* 45								
Max Q Clear Time (g_c+I1), s		20.1		21.3								
Green Ext Time (p_c), s		3.0		13.4								
Intersection Summary												
HCM 6th Ctrl Delay			18.9									
HCM 6th LOS			B									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	222	97	0	0	0	0	0	0	122	1377	0
Future Volume (veh/h)	0	222	97	0	0	0	0	0	0	122	1377	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	241	105							133	1497	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	817	345							249	2518	0
Arrive On Green	0.00	0.34	0.34							0.18	0.18	0.00
Sat Flow, veh/h	0	2527	1028							358	4649	0
Grp Volume(v), veh/h	0	174	172							594	1036	0
Grp Sat Flow(s),veh/h/ln	0	1777	1685							1756	1549	0
Q Serve(g_s), s	0.0	6.5	6.8							23.5	27.6	0.0
Cycle Q Clear(g_c), s	0.0	6.5	6.8							27.8	27.6	0.0
Prop In Lane	0.00		0.61							0.22		0.00
Lane Grp Cap(c), veh/h	0	596	565							1032	1735	0
V/C Ratio(X)	0.00	0.29	0.30							0.58	0.60	0.00
Avail Cap(c_a), veh/h	0	596	565							1032	1735	0
HCM Platoon Ratio	1.00	1.00	1.00							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							0.80	0.80	0.00
Uniform Delay (d), s/veh	0.0	22.0	22.1							27.4	27.4	0.0
Incr Delay (d2), s/veh	0.0	1.2	1.4							1.9	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	0.0	4.6	4.6							16.9	14.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	23.3	23.5							29.2	28.6	0.0
LnGrp LOS	A	C	C							C	C	A
Approach Vol, veh/h		346									1630	
Approach Delay, s/veh		23.4									28.8	
Approach LOS		C									C	

Timer - Assigned Phs		2		4
Phs Duration (G+Y+Rc), s		35.0		55.0
Change Period (Y+Rc), s		* 4.8		* 4.6
Max Green Setting (Gmax), s		* 30		* 50
Max Q Clear Time (g_c+I1), s		8.8		29.8
Green Ext Time (p_c), s		2.0		11.9

Intersection Summary			
HCM 6th Ctrl Delay			27.9
HCM 6th LOS			C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	371	60	211	1005	0	0	0	0
Future Volume (veh/h)	0	0	0	0	371	60	211	1005	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	403	65	229	1092	0			
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	620	100	462	1981	0			
Arrive On Green				0.00	0.39	0.39	0.17	0.17	0.00			
Sat Flow, veh/h				0	1571	253	796	4071	0			
Grp Volume(v), veh/h				0	0	468	464	857	0			
Grp Sat Flow(s),veh/h/ln				0	0	1825	1616	1549	0			
Q Serve(g_s), s				0.0	0.0	18.8	23.7	22.8	0.0			
Cycle Q Clear(g_c), s				0.0	0.0	18.8	23.8	22.8	0.0			
Prop In Lane				0.00		0.14	0.49		0.00			
Lane Grp Cap(c), veh/h				0	0	720	877	1566	0			
V/C Ratio(X)				0.00	0.00	0.65	0.53	0.55	0.00			
Avail Cap(c_a), veh/h				0	0	720	877	1566	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	0.0	22.2	28.4	28.1	0.0			
Incr Delay (d2), s/veh				0.0	0.0	4.5	2.3	1.4	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln				0.0	0.0	11.7	14.1	12.9	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	26.7	30.7	29.4	0.0			
LnGrp LOS				A	A	C	C	C	A			
Approach Vol, veh/h					468			1321				
Approach Delay, s/veh					26.7			29.9				
Approach LOS					C			C				

Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		40.0						50.0				
Change Period (Y+Rc), s		4.5						4.5				
Max Green Setting (Gmax), s		35.5						45.5				
Max Q Clear Time (g_c+I1), s		20.8						25.8				
Green Ext Time (p_c), s		2.6						9.2				

Intersection Summary			
HCM 6th Ctrl Delay			29.1
HCM 6th LOS			C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	195	0	0	0	0	0	1206	69	0	0	0
Future Volume (veh/h)	186	195	0	0	0	0	0	1206	69	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	202	212	0				0	1311	75			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	605	668	0				0	2581	801			
Arrive On Green	0.13	0.13	0.00				0.00	0.51	0.51			
Sat Flow, veh/h	1348	1793	0				0	5274	1585			
Grp Volume(v), veh/h	215	199	0				0	1311	75			
Grp Sat Flow(s),veh/h/ln	1440	1617	0				0	1702	1585			
Q Serve(g_s), s	12.2	10.1	0.0				0.0	15.4	2.2			
Cycle Q Clear(g_c), s	12.3	10.1	0.0				0.0	15.4	2.2			
Prop In Lane	0.94		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	641	632	0				0	2581	801			
V/C Ratio(X)	0.34	0.31	0.00				0.00	0.51	0.09			
Avail Cap(c_a), veh/h	641	632	0				0	2581	801			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.70	0.70			
Uniform Delay (d), s/veh	29.2	28.2	0.0				0.0	14.8	11.5			
Incr Delay (d2), s/veh	1.4	1.3	0.0				0.0	0.5	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	7.3	6.7	0.0				0.0	7.8	1.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.6	29.5	0.0				0.0	15.3	11.7			
LnGrp LOS	C	C	A				A	B	B			
Approach Vol, veh/h		414						1386				
Approach Delay, s/veh		30.1						15.1				
Approach LOS		C						B				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		40.0						50.0				
Change Period (Y+Rc), s		* 4.8						4.5				
Max Green Setting (Gmax), s		* 35						45.5				
Max Q Clear Time (g_c+I1), s		14.3						17.4				
Green Ext Time (p_c), s		2.4						11.8				
Intersection Summary												
HCM 6th Ctrl Delay			18.6									
HCM 6th LOS			B									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	368	0	0	645	161	117	1021	133	0	0	0
Future Volume (veh/h)	84	368	0	0	645	161	117	1021	133	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	91	400	0	0	701	175	127	1110	145			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	238	1171	0	0	1558	389	168	1571	525			
Arrive On Green	1.00	1.00	0.00	0.00	0.55	0.55	0.33	0.33	0.33			
Sat Flow, veh/h	326	2202	0	0	2911	703	507	4742	1585			
Grp Volume(v), veh/h	204	287	0	0	442	434	462	775	145			
Grp Sat Flow(s),veh/h/ln	826	1617	0	0	1777	1744	1845	1702	1585			
Q Serve(g_s), s	6.3	0.0	0.0	0.0	13.3	13.3	20.1	17.7	6.1			
Cycle Q Clear(g_c), s	19.7	0.0	0.0	0.0	13.3	13.3	20.1	17.7	6.1			
Prop In Lane	0.45		0.00	0.00		0.40	0.28		1.00			
Lane Grp Cap(c), veh/h	515	894	0	0	983	965	611	1128	525			
V/C Ratio(X)	0.40	0.32	0.00	0.00	0.45	0.45	0.76	0.69	0.28			
Avail Cap(c_a), veh/h	515	894	0	0	983	965	756	1396	650			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	1.9	0.0	0.0	0.0	12.0	12.0	26.8	26.1	22.1			
Incr Delay (d2), s/veh	0.5	0.2	0.0	0.0	1.5	1.5	3.4	1.1	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	0.2	0.1	0.0	0.0	7.7	7.6	12.2	9.9	3.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.4	0.2	0.0	0.0	13.4	13.5	30.3	27.1	22.4			
LnGrp LOS	A	A	A	A	B	B	C	C	C			
Approach Vol, veh/h		491			876			1382				
Approach Delay, s/veh		1.1			13.5			27.7				
Approach LOS		A			B			C				

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		55.1				55.1		34.9				
Change Period (Y+Rc), s		* 5.3				* 5.3		5.1				
Max Green Setting (Gmax), s		* 43				* 43		36.9				
Max Q Clear Time (g_c+I1), s		15.3				21.7		22.1				
Green Ext Time (p_c), s		6.4				3.5		7.7				

Intersection Summary			
HCM 6th Ctrl Delay			18.4
HCM 6th LOS			B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	109	387	0	0	0	0	0	853	155
Future Volume (veh/h)	0	0	0	109	387	0	0	0	0	0	853	155
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				118	421	0				0	927	168
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				745	698	0				0	2615	812
Arrive On Green				0.37	0.37	0.00				0.00	0.51	0.51
Sat Flow, veh/h				1781	1870	0				0	5274	1585
Grp Volume(v), veh/h				118	421	0				0	927	168
Grp Sat Flow(s),veh/h/ln				1781	1870	0				0	1702	1585
Q Serve(g_s), s				4.0	16.4	0.0				0.0	9.7	5.2
Cycle Q Clear(g_c), s				4.0	16.4	0.0				0.0	9.7	5.2
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				745	698	0				0	2615	812
V/C Ratio(X)				0.16	0.60	0.00				0.00	0.35	0.21
Avail Cap(c_a), veh/h				745	698	0				0	2615	812
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				18.9	22.8	0.0				0.0	13.1	12.0
Incr Delay (d2), s/veh				0.5	3.8	0.0				0.0	0.4	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln				3.1	10.6	0.0				0.0	5.6	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				19.4	26.6	0.0				0.0	13.5	12.6
LnGrp LOS				B	C	A				A	B	B
Approach Vol, veh/h					539						1095	
Approach Delay, s/veh					25.0						13.3	
Approach LOS					C						B	

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		39.0		51.0								
Change Period (Y+Rc), s		* 5.4		* 4.9								
Max Green Setting (Gmax), s		* 34		* 46								
Max Q Clear Time (g_c+I1), s		18.4		11.7								
Green Ext Time (p_c), s		2.6		8.6								

Intersection Summary	
HCM 6th Ctrl Delay	17.2
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	183	169	0	0	0	0	0	0	218	801	0
Future Volume (veh/h)	0	183	169	0	0	0	0	0	0	218	801	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	199	184							237	871	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	916	801							413	1315	0
Arrive On Green	0.00	0.51	0.51							0.35	0.35	0.00
Sat Flow, veh/h	0	1889	1569							939	3882	0
Grp Volume(v), veh/h	0	197	186							396	712	0
Grp Sat Flow(s),veh/h/ln	0	1777	1588							1570	1549	0
Q Serve(g_s), s	0.0	4.3	4.6							15.3	13.5	0.0
Cycle Q Clear(g_c), s	0.0	4.3	4.6							15.3	13.5	0.0
Prop In Lane	0.00		0.99							0.60		0.00
Lane Grp Cap(c), veh/h	0	907	810							636	1092	0
V/C Ratio(X)	0.00	0.22	0.23							0.62	0.65	0.00
Avail Cap(c_a), veh/h	0	907	810							894	1602	0
HCM Platoon Ratio	1.00	1.00	1.00							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							0.95	0.95	0.00
Uniform Delay (d), s/veh	0.0	9.4	9.5							19.6	19.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.7							1.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	0.0	2.9	2.8							7.7	6.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.0	10.2							20.6	19.7	0.0
LnGrp LOS	A	A	B							C	B	A
Approach Vol, veh/h		383									1108	
Approach Delay, s/veh		10.1									20.0	
Approach LOS		B									C	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		40.5		29.5								
Change Period (Y+Rc), s		* 4.8		* 4.8								
Max Green Setting (Gmax), s		* 24		* 36								
Max Q Clear Time (g_c+I1), s		6.6		17.3								
Green Ext Time (p_c), s		2.2		7.4								
Intersection Summary												
HCM 6th Ctrl Delay			17.5									
HCM 6th LOS			B									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	263	91	229	1865	0	0	0	0
Future Volume (veh/h)	0	0	0	0	263	91	229	1865	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	286	99	249	2027	0			
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	497	172	315	2114	0			
Arrive On Green				0.00	0.37	0.37	0.16	0.16	0.00			
Sat Flow, veh/h				0	1328	460	505	4454	0			
Grp Volume(v), veh/h				0	0	385	836	1440	0			
Grp Sat Flow(s),veh/h/ln				0	0	1788	1709	1549	0			
Q Serve(g_s), s				0.0	0.0	12.0	34.0	32.2	0.0			
Cycle Q Clear(g_c), s				0.0	0.0	12.0	34.2	32.2	0.0			
Prop In Lane				0.00		0.26	0.30		0.00			
Lane Grp Cap(c), veh/h				0	0	669	907	1522	0			
V/C Ratio(X)				0.00	0.00	0.58	0.92	0.95	0.00			
Avail Cap(c_a), veh/h				0	0	669	907	1522	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	0.0	17.5	29.2	28.4	0.0			
Incr Delay (d2), s/veh				0.0	0.0	3.6	16.1	13.4	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln				0.0	0.0	7.6	23.9	20.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	21.0	45.3	41.8	0.0			
LnGrp LOS				A	A	C	D	D	A			
Approach Vol, veh/h					385			2276				
Approach Delay, s/veh					21.0			43.1				
Approach LOS					C			D				

Timer - Assigned Phs	2	8
Phs Duration (G+Y+Rc), s	31.0	39.0
Change Period (Y+Rc), s	* 4.8	4.6
Max Green Setting (Gmax), s	* 26	34.4
Max Q Clear Time (g_c+I1), s	14.0	36.2
Green Ext Time (p_c), s	1.9	0.0

Intersection Summary	
HCM 6th Ctrl Delay	39.9
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	223	0	0	0	0	0	1807	104	0	0	0
Future Volume (veh/h)	157	223	0	0	0	0	0	1807	104	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	171	242	0				0	1964	113			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	575	817	0				0	2298	713			
Arrive On Green	0.14	0.14	0.00				0.00	0.45	0.45			
Sat Flow, veh/h	1159	2044	0				0	5274	1585			
Grp Volume(v), veh/h	216	197	0				0	1964	113			
Grp Sat Flow(s),veh/h/ln	1500	1617	0				0	1702	1585			
Q Serve(g_s), s	8.5	7.6	0.0				0.0	24.1	3.0			
Cycle Q Clear(g_c), s	9.0	7.6	0.0				0.0	24.1	3.0			
Prop In Lane	0.79		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	718	674	0				0	2298	713			
V/C Ratio(X)	0.30	0.29	0.00				0.00	0.85	0.16			
Avail Cap(c_a), veh/h	718	674	0				0	2298	713			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.42	0.42			
Uniform Delay (d), s/veh	21.4	20.9	0.0				0.0	17.2	11.4			
Incr Delay (d2), s/veh	1.1	1.1	0.0				0.0	1.9	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	5.6	5.1	0.0				0.0	10.7	1.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	22.0	0.0				0.0	19.1	11.6			
LnGrp LOS	C	C	A				A	B	B			
Approach Vol, veh/h		413						2077				
Approach Delay, s/veh		22.3						18.7				
Approach LOS		C						B				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		34.0						36.0				
Change Period (Y+Rc), s		* 4.8						4.5				
Max Green Setting (Gmax), s		* 29						31.5				
Max Q Clear Time (g_c+I1), s		11.0						26.1				
Green Ext Time (p_c), s		2.2						4.8				

Intersection Summary		
HCM 6th Ctrl Delay		19.3
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	575	0	0	581	119	194	1552	69	0	0	0
Future Volume (veh/h)	134	575	0	0	581	119	194	1552	69	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	146	625	0	0	632	129	211	1687	75			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	203	958	0	0	1328	271	238	2034	686			
Arrive On Green	0.45	0.45	0.00	0.00	0.45	0.45	0.43	0.43	0.43			
Sat Flow, veh/h	321	2206	0	0	3034	599	549	4698	1585			
Grp Volume(v), veh/h	326	445	0	0	382	379	709	1189	75			
Grp Sat Flow(s),veh/h/ln	825	1617	0	0	1777	1763	1843	1702	1585			
Q Serve(g_s), s	21.5	18.7	0.0	0.0	13.5	13.5	31.9	27.4	2.5			
Cycle Q Clear(g_c), s	35.0	18.7	0.0	0.0	13.5	13.5	31.9	27.4	2.5			
Prop In Lane	0.45		0.00	0.00		0.34	0.30		1.00			
Lane Grp Cap(c), veh/h	430	730	0	0	802	796	798	1474	686			
V/C Ratio(X)	0.76	0.61	0.00	0.00	0.48	0.48	0.89	0.81	0.11			
Avail Cap(c_a), veh/h	430	730	0	0	802	796	817	1509	703			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	26.0	18.7	0.0	0.0	17.2	17.3	23.5	22.2	15.2			
Incr Delay (d2), s/veh	7.6	1.5	0.0	0.0	2.0	2.0	11.6	3.3	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	10.0	9.7	0.0	0.0	8.2	8.2	19.7	14.4	1.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.6	20.2	0.0	0.0	19.3	19.3	35.1	25.5	15.3			
LnGrp LOS	C	C	A	A	B	B	D	C	B			
Approach Vol, veh/h		771			761			1973				
Approach Delay, s/veh		25.8			19.3			28.6				
Approach LOS		C			B			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		45.9				45.9		44.1				
Change Period (Y+Rc), s		* 5.3				* 5.3		5.1				
Max Green Setting (Gmax), s		* 40				* 40		39.9				
Max Q Clear Time (g_c+I1), s		15.5				37.0		33.9				
Green Ext Time (p_c), s		5.1				1.4		5.1				
Intersection Summary												
HCM 6th Ctrl Delay			25.9									
HCM 6th LOS			C									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	183	748	0	0	0	0	0	1843	215
Future Volume (veh/h)	0	0	0	183	748	0	0	0	0	0	1843	215
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				199	813	0				0	2003	234
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				765	719	0				0	2559	794
Arrive On Green				0.38	0.38	0.00				0.00	0.50	0.50
Sat Flow, veh/h				1781	1870	0				0	5274	1585
Grp Volume(v), veh/h				199	813	0				0	2003	234
Grp Sat Flow(s),veh/h/ln				1781	1870	0				0	1702	1585
Q Serve(g_s), s				7.0	34.6	0.0				0.0	29.0	7.8
Cycle Q Clear(g_c), s				7.0	34.6	0.0				0.0	29.0	7.8
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				765	719	0				0	2559	794
V/C Ratio(X)				0.26	1.13	0.00				0.00	0.78	0.29
Avail Cap(c_a), veh/h				765	719	0				0	2559	794
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				19.2	27.7	0.0				0.0	18.4	13.1
Incr Delay (d2), s/veh				0.8	75.6	0.0				0.0	2.5	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln				4.8	38.4	0.0				0.0	14.6	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				20.0	103.3	0.0				0.0	20.9	14.1
LnGrp LOS				C	F	A				A	C	B
Approach Vol, veh/h					1012						2237	
Approach Delay, s/veh					87.0						20.2	
Approach LOS					F						C	

Timer - Assigned Phs		2		4
Phs Duration (G+Y+Rc), s		40.0		50.0
Change Period (Y+Rc), s		* 5.4		* 4.9
Max Green Setting (Gmax), s		* 35		* 45
Max Q Clear Time (g_c+I1), s		36.6		31.0
Green Ext Time (p_c), s		0.0		11.6

Intersection Summary	
HCM 6th Ctrl Delay	41.0
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	208	230	0	0	0	0	0	0	144	1802	0
Future Volume (veh/h)	0	208	230	0	0	0	0	0	0	144	1802	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	226	250							157	1959	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	629	561							230	2451	0
Arrive On Green	0.00	0.35	0.35							0.18	0.18	0.00
Sat Flow, veh/h	0	1870	1585							335	4679	0
Grp Volume(v), veh/h	0	226	250							778	1338	0
Grp Sat Flow(s),veh/h/ln	0	1777	1585							1763	1549	0
Q Serve(g_s), s	0.0	8.5	10.9							35.5	37.2	0.0
Cycle Q Clear(g_c), s	0.0	8.5	10.9							38.1	37.2	0.0
Prop In Lane	0.00		1.00							0.20		0.00
Lane Grp Cap(c), veh/h	0	629	561							1003	1677	0
V/C Ratio(X)	0.00	0.36	0.45							0.78	0.80	0.00
Avail Cap(c_a), veh/h	0	629	561							1035	1735	0
HCM Platoon Ratio	1.00	1.00	1.00							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							0.59	0.59	0.00
Uniform Delay (d), s/veh	0.0	21.5	22.3							32.5	32.2	0.0
Incr Delay (d2), s/veh	0.0	1.6	2.6							2.2	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	0.0	5.7	6.5							21.9	18.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	23.1	24.8							34.7	33.8	0.0
LnGrp LOS	A	C	C							C	C	A
Approach Vol, veh/h		476									2116	
Approach Delay, s/veh		24.0									34.1	
Approach LOS		C									C	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		36.7		53.3								
Change Period (Y+Rc), s		* 4.8		* 4.6								
Max Green Setting (Gmax), s		* 30		* 50								
Max Q Clear Time (g_c+I1), s		12.9		40.1								
Green Ext Time (p_c), s		2.8		8.6								
Intersection Summary												
HCM 6th Ctrl Delay			32.3									
HCM 6th LOS			C									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	588	149	416	1489	0	0	0	0
Future Volume (veh/h)	0	0	0	0	588	149	416	1489	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	639	162	452	1618	0			
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	568	144	554	1867	0			
Arrive On Green				0.00	0.39	0.39	0.17	0.17	0.00			
Sat Flow, veh/h				0	1440	365	967	3845	0			
Grp Volume(v), veh/h				0	0	801	730	1340	0			
Grp Sat Flow(s),veh/h/ln				0	0	1805	1561	1549	0			
Q Serve(g_s), s				0.0	0.0	35.5	41.4	37.8	0.0			
Cycle Q Clear(g_c), s				0.0	0.0	35.5	41.4	37.8	0.0			
Prop In Lane				0.00		0.20	0.62		0.00			
Lane Grp Cap(c), veh/h				0	0	712	854	1566	0			
V/C Ratio(X)				0.00	0.00	1.13	0.85	0.86	0.00			
Avail Cap(c_a), veh/h				0	0	712	854	1566	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	0.0	27.3	35.8	34.3	0.0			
Incr Delay (d2), s/veh				0.0	0.0	73.7	10.6	6.2	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln				0.0	0.0	37.4	24.3	21.2	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	101.0	46.5	40.5	0.0			
LnGrp LOS				A	A	F	D	D	A			
Approach Vol, veh/h					801			2070				
Approach Delay, s/veh					101.0			42.6				
Approach LOS					F			D				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		40.0						50.0				
Change Period (Y+Rc), s		4.5						4.5				
Max Green Setting (Gmax), s		35.5						45.5				
Max Q Clear Time (g_c+I1), s		37.5						43.4				
Green Ext Time (p_c), s		0.0						1.9				
Intersection Summary												
HCM 6th Ctrl Delay			58.9									
HCM 6th LOS			E									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	239	0	0	0	0	0	1846	90	0	0	0
Future Volume (veh/h)	168	239	0	0	0	0	0	1846	90	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	183	260	0				0	2007	98			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	530	759	0				0	2581	801			
Arrive On Green	0.13	0.13	0.00				0.00	0.51	0.51			
Sat Flow, veh/h	1172	2026	0				0	5274	1585			
Grp Volume(v), veh/h	229	214	0				0	2007	98			
Grp Sat Flow(s),veh/h/ln	1496	1617	0				0	1702	1585			
Q Serve(g_s), s	12.1	10.8	0.0				0.0	28.8	2.9			
Cycle Q Clear(g_c), s	12.6	10.8	0.0				0.0	28.8	2.9			
Prop In Lane	0.80		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	657	632	0				0	2581	801			
V/C Ratio(X)	0.35	0.34	0.00				0.00	0.78	0.12			
Avail Cap(c_a), veh/h	657	632	0				0	2581	801			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.19	0.19			
Uniform Delay (d), s/veh	29.3	28.6	0.0				0.0	18.1	11.7			
Incr Delay (d2), s/veh	1.5	1.4	0.0				0.0	0.5	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	7.7	7.2	0.0				0.0	12.0	1.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.7	30.0	0.0				0.0	18.6	11.8			
LnGrp LOS	C	C	A				A	B	B			
Approach Vol, veh/h		443						2105				
Approach Delay, s/veh		30.4						18.3				
Approach LOS		C						B				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		40.0						50.0				
Change Period (Y+Rc), s		* 4.8						4.5				
Max Green Setting (Gmax), s		* 35						45.5				
Max Q Clear Time (g_c+I1), s		14.6						30.8				
Green Ext Time (p_c), s		2.5						11.7				
Intersection Summary												
HCM 6th Ctrl Delay			20.4									
HCM 6th LOS			C									
Notes												

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	565	0	0	852	125	165	1662	157	0	0	0
Future Volume (veh/h)	135	565	0	0	852	125	165	1662	157	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	147	614	0	0	926	136	179	1807	171			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	168	896	0	0	1475	217	182	1971	650			
Arrive On Green	0.95	0.95	0.00	0.00	0.47	0.47	0.41	0.41	0.41			
Sat Flow, veh/h	226	1975	0	0	3202	456	445	4807	1585			
Grp Volume(v), veh/h	275	486	0	0	529	533	743	1243	171			
Grp Sat Flow(s),veh/h/ln	498	1617	0	0	1777	1788	1848	1702	1585			
Q Serve(g_s), s	22.6	3.5	0.0	0.0	20.1	20.1	35.7	30.5	6.4			
Cycle Q Clear(g_c), s	42.7	3.5	0.0	0.0	20.1	20.1	35.7	30.5	6.4			
Prop In Lane	0.53		0.00	0.00		0.26	0.24		1.00			
Lane Grp Cap(c), veh/h	298	767	0	0	843	848	758	1396	650			
V/C Ratio(X)	0.92	0.63	0.00	0.00	0.63	0.63	0.98	0.89	0.26			
Avail Cap(c_a), veh/h	298	767	0	0	843	848	758	1396	650			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	11.6	1.3	0.0	0.0	17.7	17.7	26.2	24.7	17.6			
Incr Delay (d2), s/veh	32.7	1.7	0.0	0.0	3.5	3.5	27.9	7.5	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	9.3	1.6	0.0	0.0	11.6	11.6	25.3	16.8	3.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.4	3.0	0.0	0.0	21.2	21.2	54.1	32.2	17.8			
LnGrp LOS	D	A	A	A	C	C	D	C	B			
Approach Vol, veh/h		761			1062			2157				
Approach Delay, s/veh		17.9			21.2			38.6				
Approach LOS		B			C			D				

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		48.0				48.0		42.0				
Change Period (Y+Rc), s		* 5.3				* 5.3		5.1				
Max Green Setting (Gmax), s		* 43				* 43		36.9				
Max Q Clear Time (g_c+I1), s		22.1				44.7		37.7				
Green Ext Time (p_c), s		7.4				0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay			30.0
HCM 6th LOS			C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	120	399	0	0	0	0	0	857	155
Future Volume (veh/h)	0	0	0	120	399	0	0	0	0	0	857	155
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				130	434	0				0	932	168
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				745	698	0				0	2615	812
Arrive On Green				0.37	0.37	0.00				0.00	0.51	0.51
Sat Flow, veh/h				1781	1870	0				0	5274	1585
Grp Volume(v), veh/h				130	434	0				0	932	168
Grp Sat Flow(s),veh/h/ln				1781	1870	0				0	1702	1585
Q Serve(g_s), s				4.4	17.0	0.0				0.0	9.8	5.2
Cycle Q Clear(g_c), s				4.4	17.0	0.0				0.0	9.8	5.2
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				745	698	0				0	2615	812
V/C Ratio(X)				0.17	0.62	0.00				0.00	0.36	0.21
Avail Cap(c_a), veh/h				745	698	0				0	2615	812
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				19.1	23.0	0.0				0.0	13.1	12.0
Incr Delay (d2), s/veh				0.5	4.1	0.0				0.0	0.4	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln				3.3	11.0	0.0				0.0	5.6	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				19.6	27.1	0.0				0.0	13.5	12.6
LnGrp LOS				B	C	A				A	B	B
Approach Vol, veh/h					564						1100	
Approach Delay, s/veh					25.4						13.3	
Approach LOS					C						B	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		39.0		51.0								
Change Period (Y+Rc), s		* 5.4		* 4.9								
Max Green Setting (Gmax), s		* 34		* 46								
Max Q Clear Time (g_c+I1), s		19.0		11.8								
Green Ext Time (p_c), s		2.7		8.7								
Intersection Summary												
HCM 6th Ctrl Delay			17.4									
HCM 6th LOS			B									
Notes												

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	190	169	0	0	0	0	0	0	222	812	0
Future Volume (veh/h)	0	190	169	0	0	0	0	0	0	222	812	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	207	184							241	883	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	926	781							418	1328	0
Arrive On Green	0.00	0.51	0.51							0.36	0.36	0.00
Sat Flow, veh/h	0	1922	1541							942	3878	0
Grp Volume(v), veh/h	0	201	190							402	722	0
Grp Sat Flow(s),veh/h/ln	0	1777	1593							1569	1549	0
Q Serve(g_s), s	0.0	4.4	4.7							15.5	13.7	0.0
Cycle Q Clear(g_c), s	0.0	4.4	4.7							15.5	13.7	0.0
Prop In Lane	0.00		0.97							0.60		0.00
Lane Grp Cap(c), veh/h	0	900	807							642	1104	0
V/C Ratio(X)	0.00	0.22	0.24							0.63	0.65	0.00
Avail Cap(c_a), veh/h	0	900	807							894	1602	0
HCM Platoon Ratio	1.00	1.00	1.00							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							0.95	0.95	0.00
Uniform Delay (d), s/veh	0.0	9.6	9.7							19.5	18.9	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.7							1.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	0.0	3.0	2.9							7.7	6.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.2	10.4							20.4	19.5	0.0
LnGrp LOS	A	B	B							C	B	A
Approach Vol, veh/h		391									1124	
Approach Delay, s/veh		10.3									19.9	
Approach LOS		B									B	

Timer - Assigned Phs		2		4					
Phs Duration (G+Y+Rc), s		40.2		29.8					
Change Period (Y+Rc), s		* 4.8		* 4.8					
Max Green Setting (Gmax), s		* 24		* 36					
Max Q Clear Time (g_c+I1), s		6.7		17.5					
Green Ext Time (p_c), s		2.2		7.5					

Intersection Summary			
HCM 6th Ctrl Delay			17.4
HCM 6th LOS			B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	269	91	254	1901	0	0	0	0
Future Volume (veh/h)	0	0	0	0	269	91	254	1901	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	292	99	276	2066	0			
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	500	170	335	2089	0			
Arrive On Green				0.00	0.37	0.37	0.16	0.16	0.00			
Sat Flow, veh/h				0	1336	453	544	4404	0			
Grp Volume(v), veh/h				0	0	391	861	1481	0			
Grp Sat Flow(s),veh/h/ln				0	0	1789	1697	1549	0			
Q Serve(g_s), s				0.0	0.0	12.3	34.4	33.3	0.0			
Cycle Q Clear(g_c), s				0.0	0.0	12.3	34.4	33.3	0.0			
Prop In Lane				0.00		0.25	0.32		0.00			
Lane Grp Cap(c), veh/h				0	0	670	902	1522	0			
V/C Ratio(X)				0.00	0.00	0.58	0.95	0.97	0.00			
Avail Cap(c_a), veh/h				0	0	670	902	1522	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	0.0	17.5	29.9	28.9	0.0			
Incr Delay (d2), s/veh				0.0	0.0	3.7	20.8	17.5	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln				0.0	0.0	7.7	25.8	21.5	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	21.2	50.7	46.3	0.0			
LnGrp LOS				A	A	C	D	D	A			
Approach Vol, veh/h					391			2342				
Approach Delay, s/veh					21.2			47.9				
Approach LOS					C			D				

Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		31.0						39.0				
Change Period (Y+Rc), s		* 4.8						4.6				
Max Green Setting (Gmax), s		* 26						34.4				
Max Q Clear Time (g_c+I1), s		14.3						36.4				
Green Ext Time (p_c), s		1.9						0.0				

Intersection Summary		
HCM 6th Ctrl Delay		44.1
HCM 6th LOS		D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	262	0	0	0	0	0	1830	104	0	0	0
Future Volume (veh/h)	168	262	0	0	0	0	0	1830	104	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	183	285	0				0	1989	113			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	551	846	0				0	2298	713			
Arrive On Green	0.14	0.14	0.00				0.00	0.45	0.45			
Sat Flow, veh/h	1106	2113	0				0	5274	1585			
Grp Volume(v), veh/h	244	224	0				0	1989	113			
Grp Sat Flow(s),veh/h/ln	1517	1617	0				0	1702	1585			
Q Serve(g_s), s	9.5	8.8	0.0				0.0	24.6	3.0			
Cycle Q Clear(g_c), s	10.1	8.8	0.0				0.0	24.6	3.0			
Prop In Lane	0.75		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	723	674	0				0	2298	713			
V/C Ratio(X)	0.34	0.33	0.00				0.00	0.87	0.16			
Avail Cap(c_a), veh/h	723	674	0				0	2298	713			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.41	0.41			
Uniform Delay (d), s/veh	21.9	21.4	0.0				0.0	17.3	11.4			
Incr Delay (d2), s/veh	1.3	1.3	0.0				0.0	2.0	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	6.4	5.8	0.0				0.0	10.9	1.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.2	22.7	0.0				0.0	19.3	11.6			
LnGrp LOS	C	C	A				A	B	B			
Approach Vol, veh/h		468						2102				
Approach Delay, s/veh		22.9						18.9				
Approach LOS		C						B				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		34.0						36.0				
Change Period (Y+Rc), s		* 4.8						4.5				
Max Green Setting (Gmax), s		* 29						31.5				
Max Q Clear Time (g_c+I1), s		12.1						26.6				
Green Ext Time (p_c), s		2.5						4.4				
Intersection Summary												
HCM 6th Ctrl Delay			19.7									
HCM 6th LOS			B									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	575	0	0	585	131	194	1562	69	0	0	0
Future Volume (veh/h)	135	575	0	0	585	131	194	1562	69	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	147	625	0	0	636	142	211	1698	75			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	200	947	0	0	1301	290	237	2039	687			
Arrive On Green	0.45	0.45	0.00	0.00	0.45	0.45	0.43	0.43	0.43			
Sat Flow, veh/h	314	2186	0	0	2981	644	545	4702	1585			
Grp Volume(v), veh/h	324	448	0	0	391	387	713	1196	75			
Grp Sat Flow(s),veh/h/ln	798	1617	0	0	1777	1754	1843	1702	1585			
Q Serve(g_s), s	22.1	19.0	0.0	0.0	13.9	14.0	32.2	27.6	2.5			
Cycle Q Clear(g_c), s	36.1	19.0	0.0	0.0	13.9	14.0	32.2	27.6	2.5			
Prop In Lane	0.45		0.00	0.00		0.37	0.30		1.00			
Lane Grp Cap(c), veh/h	418	729	0	0	801	791	799	1476	687			
V/C Ratio(X)	0.77	0.62	0.00	0.00	0.49	0.49	0.89	0.81	0.11			
Avail Cap(c_a), veh/h	418	729	0	0	801	791	817	1509	703			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	26.6	18.8	0.0	0.0	17.4	17.4	23.5	22.2	15.1			
Incr Delay (d2), s/veh	8.8	1.6	0.0	0.0	2.1	2.2	11.9	3.4	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	10.2	9.8	0.0	0.0	8.4	8.4	19.9	14.5	1.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.4	20.3	0.0	0.0	19.5	19.6	35.5	25.6	15.2			
LnGrp LOS	D	C	A	A	B	B	D	C	B			
Approach Vol, veh/h		772			778			1984				
Approach Delay, s/veh		26.6			19.6			28.8				
Approach LOS		C			B			C				

Timer - Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		45.9				45.9		44.1
Change Period (Y+Rc), s		* 5.3				* 5.3		5.1
Max Green Setting (Gmax), s		* 40				* 40		39.9
Max Q Clear Time (g_c+I1), s		16.0				38.1		34.2
Green Ext Time (p_c), s		5.3				0.9		4.9

Intersection Summary	
HCM 6th Ctrl Delay	26.3
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	190	756	0	0	0	0	0	1854	215
Future Volume (veh/h)	0	0	0	190	756	0	0	0	0	0	1854	215
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				207	822	0				0	2015	234
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				765	719	0				0	2559	794
Arrive On Green				0.38	0.38	0.00				0.00	0.50	0.50
Sat Flow, veh/h				1781	1870	0				0	5274	1585
Grp Volume(v), veh/h				207	822	0				0	2015	234
Grp Sat Flow(s),veh/h/ln				1781	1870	0				0	1702	1585
Q Serve(g_s), s				7.3	34.6	0.0				0.0	29.3	7.8
Cycle Q Clear(g_c), s				7.3	34.6	0.0				0.0	29.3	7.8
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				765	719	0				0	2559	794
V/C Ratio(X)				0.27	1.14	0.00				0.00	0.79	0.29
Avail Cap(c_a), veh/h				765	719	0				0	2559	794
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				19.3	27.7	0.0				0.0	18.5	13.1
Incr Delay (d2), s/veh				0.9	80.4	0.0				0.0	2.5	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln				4.9	39.8	0.0				0.0	14.7	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				20.2	108.1	0.0				0.0	21.0	14.1
LnGrp LOS				C	F	A				A	C	B
Approach Vol, veh/h					1029						2249	
Approach Delay, s/veh					90.4						20.3	
Approach LOS					F						C	

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		40.0		50.0								
Change Period (Y+Rc), s		* 5.4		* 4.9								
Max Green Setting (Gmax), s		* 35		* 45								
Max Q Clear Time (g_c+I1), s		36.6		31.3								
Green Ext Time (p_c), s		0.0		11.4								

Intersection Summary		
HCM 6th Ctrl Delay		42.3
HCM 6th LOS		D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	226	230	0	0	0	0	0	0	155	1809	0
Future Volume (veh/h)	0	226	230	0	0	0	0	0	0	155	1809	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	246	250							168	1966	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	596	532							249	2517	0
Arrive On Green	0.00	0.34	0.34							0.18	0.18	0.00
Sat Flow, veh/h	0	1870	1585							358	4648	0
Grp Volume(v), veh/h	0	246	250							784	1350	0
Grp Sat Flow(s),veh/h/ln	0	1777	1585							1756	1549	0
Q Serve(g_s), s	0.0	9.6	11.2							36.1	37.4	0.0
Cycle Q Clear(g_c), s	0.0	9.6	11.2							38.4	37.4	0.0
Prop In Lane	0.00		1.00							0.21		0.00
Lane Grp Cap(c), veh/h	0	596	532							1032	1735	0
V/C Ratio(X)	0.00	0.41	0.47							0.76	0.78	0.00
Avail Cap(c_a), veh/h	0	596	532							1032	1735	0
HCM Platoon Ratio	1.00	1.00	1.00							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							0.59	0.59	0.00
Uniform Delay (d), s/veh	0.0	23.1	23.6							31.7	31.4	0.0
Incr Delay (d2), s/veh	0.0	2.1	3.0							3.2	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	0.0	6.4	6.7							22.3	19.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.2	26.6							34.9	33.5	0.0
LnGrp LOS	A	C	C							C	C	A
Approach Vol, veh/h		496									2134	
Approach Delay, s/veh		25.9									34.0	
Approach LOS		C									C	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		35.0		55.0								
Change Period (Y+Rc), s		* 4.8		* 4.6								
Max Green Setting (Gmax), s		* 30		* 50								
Max Q Clear Time (g_c+I1), s		13.2		40.4								
Green Ext Time (p_c), s		2.9		8.5								
Intersection Summary												
HCM 6th Ctrl Delay			32.5									
HCM 6th LOS			C									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	605	149	433	1513	0	0	0	0
Future Volume (veh/h)	0	0	0	0	605	149	433	1513	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	658	162	471	1645	0			
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	572	141	561	1857	0			
Arrive On Green				0.00	0.39	0.39	0.17	0.17	0.00			
Sat Flow, veh/h				0	1449	357	981	3827	0			
Grp Volume(v), veh/h				0	0	820	748	1368	0			
Grp Sat Flow(s),veh/h/ln				0	0	1806	1557	1549	0			
Q Serve(g_s), s				0.0	0.0	35.5	42.8	38.8	0.0			
Cycle Q Clear(g_c), s				0.0	0.0	35.5	42.8	38.8	0.0			
Prop In Lane				0.00		0.20	0.63		0.00			
Lane Grp Cap(c), veh/h				0	0	712	852	1566	0			
V/C Ratio(X)				0.00	0.00	1.15	0.88	0.87	0.00			
Avail Cap(c_a), veh/h				0	0	712	852	1566	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	0.0	27.3	36.4	34.7	0.0			
Incr Delay (d2), s/veh				0.0	0.0	83.6	12.3	7.1	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln				0.0	0.0	40.3	25.3	21.8	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	110.9	48.7	41.8	0.0			
LnGrp LOS				A	A	F	D	D	A			
Approach Vol, veh/h					820			2116				
Approach Delay, s/veh					110.9			44.2				
Approach LOS					F			D				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		40.0						50.0				
Change Period (Y+Rc), s		4.5						4.5				
Max Green Setting (Gmax), s		35.5						45.5				
Max Q Clear Time (g_c+I1), s		37.5						44.8				
Green Ext Time (p_c), s		0.0						0.7				
Intersection Summary												
HCM 6th Ctrl Delay			62.8									
HCM 6th LOS			E									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	265	0	0	0	0	0	1906	90	0	0	0
Future Volume (veh/h)	196	265	0	0	0	0	0	1906	90	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	213	288	0				0	2072	98			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	552	732	0				0	2581	801			
Arrive On Green	0.13	0.13	0.00				0.00	0.51	0.51			
Sat Flow, veh/h	1224	1958	0				0	5274	1585			
Grp Volume(v), veh/h	258	243	0				0	2072	98			
Grp Sat Flow(s),veh/h/ln	1479	1617	0				0	1702	1585			
Q Serve(g_s), s	14.5	12.4	0.0				0.0	30.4	2.9			
Cycle Q Clear(g_c), s	14.5	12.4	0.0				0.0	30.4	2.9			
Prop In Lane	0.83		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	652	632	0				0	2581	801			
V/C Ratio(X)	0.40	0.38	0.00				0.00	0.80	0.12			
Avail Cap(c_a), veh/h	652	632	0				0	2581	801			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.16	0.16			
Uniform Delay (d), s/veh	30.2	29.3	0.0				0.0	18.5	11.7			
Incr Delay (d2), s/veh	1.8	1.8	0.0				0.0	0.5	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	8.6	8.1	0.0				0.0	12.5	1.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.0	31.0	0.0				0.0	19.0	11.8			
LnGrp LOS	C	C	A				A	B	B			
Approach Vol, veh/h		501						2170				
Approach Delay, s/veh		31.5						18.6				
Approach LOS		C						B				

Timer - Assigned Phs		2						8
Phs Duration (G+Y+Rc), s		40.0						50.0
Change Period (Y+Rc), s		* 4.8						4.5
Max Green Setting (Gmax), s		* 35						45.5
Max Q Clear Time (g_c+I1), s		16.5						32.4
Green Ext Time (p_c), s		2.8						10.9

Intersection Summary		
HCM 6th Ctrl Delay		21.1
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	565	0	0	855	157	165	1688	157	0	0	0
Future Volume (veh/h)	137	565	0	0	855	157	165	1688	157	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	149	614	0	0	929	171	179	1835	171			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	162	880	0	0	1422	262	180	1974	650			
Arrive On Green	0.95	0.95	0.00	0.00	0.47	0.47	0.41	0.41	0.41			
Sat Flow, veh/h	211	1940	0	0	3090	551	439	4814	1585			
Grp Volume(v), veh/h	268	495	0	0	551	549	754	1260	171			
Grp Sat Flow(s),veh/h/ln	449	1617	0	0	1777	1771	1848	1702	1585			
Q Serve(g_s), s	21.4	3.6	0.0	0.0	21.2	21.3	36.6	31.2	6.4			
Cycle Q Clear(g_c), s	42.7	3.6	0.0	0.0	21.2	21.3	36.6	31.2	6.4			
Prop In Lane	0.56		0.00	0.00		0.31	0.24		1.00			
Lane Grp Cap(c), veh/h	275	767	0	0	843	840	758	1396	650			
V/C Ratio(X)	0.97	0.65	0.00	0.00	0.65	0.65	0.99	0.90	0.26			
Avail Cap(c_a), veh/h	275	767	0	0	843	840	758	1396	650			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	13.1	1.3	0.0	0.0	18.0	18.0	26.5	24.9	17.6			
Incr Delay (d2), s/veh	46.5	1.9	0.0	0.0	3.9	3.9	31.4	8.5	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	11.1	1.6	0.0	0.0	12.2	12.2	26.5	17.3	3.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.6	3.2	0.0	0.0	21.9	22.0	57.8	33.4	17.8			
LnGrp LOS	E	A	A	A	C	C	E	C	B			
Approach Vol, veh/h		763			1100			2185				
Approach Delay, s/veh		23.0			21.9			40.6				
Approach LOS		C			C			D				

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		48.0				48.0		42.0				
Change Period (Y+Rc), s		* 5.3				* 5.3		5.1				
Max Green Setting (Gmax), s		* 43				* 43		36.9				
Max Q Clear Time (g_c+I1), s		23.3				44.7		38.6				
Green Ext Time (p_c), s		7.5				0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay			32.2
HCM 6th LOS			C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	110	391	0	0	0	0	0	863	156
Future Volume (veh/h)	0	0	0	110	391	0	0	0	0	0	863	156
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				120	425	0				0	938	170
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				745	698	0				0	2615	812
Arrive On Green				0.37	0.37	0.00				0.00	0.51	0.51
Sat Flow, veh/h				1781	1870	0				0	5274	1585
Grp Volume(v), veh/h				120	425	0				0	938	170
Grp Sat Flow(s),veh/h/ln				1781	1870	0				0	1702	1585
Q Serve(g_s), s				4.1	16.6	0.0				0.0	9.9	5.3
Cycle Q Clear(g_c), s				4.1	16.6	0.0				0.0	9.9	5.3
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				745	698	0				0	2615	812
V/C Ratio(X)				0.16	0.61	0.00				0.00	0.36	0.21
Avail Cap(c_a), veh/h				745	698	0				0	2615	812
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				18.9	22.9	0.0				0.0	13.1	12.0
Incr Delay (d2), s/veh				0.5	3.9	0.0				0.0	0.4	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln				3.1	10.7	0.0				0.0	5.6	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				19.4	26.8	0.0				0.0	13.5	12.6
LnGrp LOS				B	C	A				A	B	B
Approach Vol, veh/h					545						1108	
Approach Delay, s/veh					25.2						13.4	
Approach LOS					C						B	

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		39.0		51.0								
Change Period (Y+Rc), s		* 5.4		* 4.9								
Max Green Setting (Gmax), s		* 34		* 46								
Max Q Clear Time (g_c+I1), s		18.6		11.9								
Green Ext Time (p_c), s		2.6		8.7								

Intersection Summary		
HCM 6th Ctrl Delay		17.3
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	186	170	0	0	0	0	0	0	221	809	0
Future Volume (veh/h)	0	186	170	0	0	0	0	0	0	221	809	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	202	185							240	879	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	915	793							417	1323	0
Arrive On Green	0.00	0.51	0.51							0.36	0.36	0.00
Sat Flow, veh/h	0	1897	1563							942	3878	0
Grp Volume(v), veh/h	0	199	188							400	719	0
Grp Sat Flow(s),veh/h/ln	0	1777	1589							1569	1549	0
Q Serve(g_s), s	0.0	4.3	4.6							15.4	13.6	0.0
Cycle Q Clear(g_c), s	0.0	4.3	4.6							15.4	13.6	0.0
Prop In Lane	0.00		0.98							0.60		0.00
Lane Grp Cap(c), veh/h	0	902	807							640	1101	0
V/C Ratio(X)	0.00	0.22	0.23							0.62	0.65	0.00
Avail Cap(c_a), veh/h	0	902	807							894	1602	0
HCM Platoon Ratio	1.00	1.00	1.00							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							0.95	0.95	0.00
Uniform Delay (d), s/veh	0.0	9.6	9.6							19.5	18.9	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.7							1.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	0.0	2.9	2.8							7.7	6.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.1	10.3							20.5	19.6	0.0
LnGrp LOS	A	B	B							C	B	A
Approach Vol, veh/h		387									1119	
Approach Delay, s/veh		10.2									19.9	
Approach LOS		B									B	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		40.3		29.7								
Change Period (Y+Rc), s		* 4.8		* 4.8								
Max Green Setting (Gmax), s		* 24		* 36								
Max Q Clear Time (g_c+I1), s		6.6		17.4								
Green Ext Time (p_c), s		2.2		7.4								
Intersection Summary												
HCM 6th Ctrl Delay			17.4									
HCM 6th LOS			B									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	266	92	231	1895	0	0	0	0
Future Volume (veh/h)	0	0	0	0	266	92	231	1895	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	289	100	251	2060	0			
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	497	172	313	2116	0			
Arrive On Green				0.00	0.37	0.37	0.16	0.16	0.00			
Sat Flow, veh/h				0	1328	460	502	4459	0			
Grp Volume(v), veh/h				0	0	389	850	1461	0			
Grp Sat Flow(s),veh/h/ln				0	0	1788	1710	1549	0			
Q Serve(g_s), s				0.0	0.0	12.2	34.2	32.8	0.0			
Cycle Q Clear(g_c), s				0.0	0.0	12.2	34.4	32.8	0.0			
Prop In Lane				0.00		0.26	0.30		0.00			
Lane Grp Cap(c), veh/h				0	0	669	907	1522	0			
V/C Ratio(X)				0.00	0.00	0.58	0.94	0.96	0.00			
Avail Cap(c_a), veh/h				0	0	669	907	1522	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	0.0	17.5	29.5	28.6	0.0			
Incr Delay (d2), s/veh				0.0	0.0	3.7	18.0	15.3	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln				0.0	0.0	7.7	24.8	20.7	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	21.2	47.5	43.9	0.0			
LnGrp LOS				A	A	C	D	D	A			
Approach Vol, veh/h					389			2311				
Approach Delay, s/veh					21.2			45.3				
Approach LOS					C			D				

Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		31.0						39.0				
Change Period (Y+Rc), s		* 4.8						4.6				
Max Green Setting (Gmax), s		* 26						34.4				
Max Q Clear Time (g_c+I1), s		14.2						36.4				
Green Ext Time (p_c), s		1.9						0.0				

Intersection Summary		
HCM 6th Ctrl Delay		41.8
HCM 6th LOS		D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	225	0	0	0	0	0	1835	106	0	0	0
Future Volume (veh/h)	158	225	0	0	0	0	0	1835	106	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	172	245	0				0	1995	115			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	574	819	0				0	2298	713			
Arrive On Green	0.14	0.14	0.00				0.00	0.45	0.45			
Sat Flow, veh/h	1155	2048	0				0	5274	1585			
Grp Volume(v), veh/h	218	199	0				0	1995	115			
Grp Sat Flow(s),veh/h/ln	1501	1617	0				0	1702	1585			
Q Serve(g_s), s	8.6	7.7	0.0				0.0	24.7	3.0			
Cycle Q Clear(g_c), s	9.1	7.7	0.0				0.0	24.7	3.0			
Prop In Lane	0.79		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	718	674	0				0	2298	713			
V/C Ratio(X)	0.30	0.29	0.00				0.00	0.87	0.16			
Avail Cap(c_a), veh/h	718	674	0				0	2298	713			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.39	0.39			
Uniform Delay (d), s/veh	21.5	20.9	0.0				0.0	17.4	11.4			
Incr Delay (d2), s/veh	1.1	1.1	0.0				0.0	1.9	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	5.7	5.1	0.0				0.0	10.9	1.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.6	22.0	0.0				0.0	19.3	11.6			
LnGrp LOS	C	C	A				A	B	B			
Approach Vol, veh/h		417						2110				
Approach Delay, s/veh		22.3						18.9				
Approach LOS		C						B				

Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		34.0						36.0				
Change Period (Y+Rc), s		* 4.8						4.5				
Max Green Setting (Gmax), s		* 29						31.5				
Max Q Clear Time (g_c+I1), s		11.1						26.7				
Green Ext Time (p_c), s		2.3						4.3				

Intersection Summary			
HCM 6th Ctrl Delay			19.5
HCM 6th LOS			B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	136	584	0	0	590	121	197	1576	70	0	0	0
Future Volume (veh/h)	136	584	0	0	590	121	197	1576	70	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	148	635	0	0	641	132	214	1713	76			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	199	946	0	0	1319	271	238	2044	689			
Arrive On Green	0.45	0.45	0.00	0.00	0.45	0.45	0.43	0.43	0.43			
Sat Flow, veh/h	315	2191	0	0	3029	604	548	4699	1585			
Grp Volume(v), veh/h	329	454	0	0	388	385	720	1207	76			
Grp Sat Flow(s),veh/h/ln	803	1617	0	0	1777	1762	1843	1702	1585			
Q Serve(g_s), s	22.7	19.3	0.0	0.0	13.8	13.9	32.6	27.9	2.6			
Cycle Q Clear(g_c), s	36.5	19.3	0.0	0.0	13.8	13.9	32.6	27.9	2.6			
Prop In Lane	0.45		0.00	0.00		0.34	0.30		1.00			
Lane Grp Cap(c), veh/h	419	727	0	0	799	792	802	1481	689			
V/C Ratio(X)	0.79	0.62	0.00	0.00	0.49	0.49	0.90	0.82	0.11			
Avail Cap(c_a), veh/h	419	727	0	0	799	792	817	1509	703			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	26.9	19.0	0.0	0.0	17.4	17.5	23.6	22.3	15.1			
Incr Delay (d2), s/veh	9.5	1.7	0.0	0.0	2.1	2.1	12.6	3.5	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	10.5	10.0	0.0	0.0	8.4	8.3	20.2	14.7	1.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.4	20.6	0.0	0.0	19.6	19.6	36.2	25.8	15.2			
LnGrp LOS	D	C	A	A	B	B	D	C	B			
Approach Vol, veh/h		783			773			2003				
Approach Delay, s/veh		27.3			19.6			29.1				
Approach LOS		C			B			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		45.8				45.8		44.2				
Change Period (Y+Rc), s		* 5.3				* 5.3		5.1				
Max Green Setting (Gmax), s		* 40				* 40		39.9				
Max Q Clear Time (g_c+I1), s		15.9				38.5		34.6				
Green Ext Time (p_c), s		5.2				0.6		4.6				
Intersection Summary												
HCM 6th Ctrl Delay			26.6									
HCM 6th LOS			C									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	186	757	0	0	0	0	0	1872	218
Future Volume (veh/h)	0	0	0	186	757	0	0	0	0	0	1872	218
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				202	823	0				0	2035	237
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				765	719	0				0	2559	794
Arrive On Green				0.38	0.38	0.00				0.00	0.50	0.50
Sat Flow, veh/h				1781	1870	0				0	5274	1585
Grp Volume(v), veh/h				202	823	0				0	2035	237
Grp Sat Flow(s),veh/h/ln				1781	1870	0				0	1702	1585
Q Serve(g_s), s				7.1	34.6	0.0				0.0	29.8	7.9
Cycle Q Clear(g_c), s				7.1	34.6	0.0				0.0	29.8	7.9
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				765	719	0				0	2559	794
V/C Ratio(X)				0.26	1.14	0.00				0.00	0.80	0.30
Avail Cap(c_a), veh/h				765	719	0				0	2559	794
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				19.2	27.7	0.0				0.0	18.6	13.2
Incr Delay (d2), s/veh				0.8	81.0	0.0				0.0	2.7	1.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln				4.8	40.0	0.0				0.0	14.9	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				20.1	108.7	0.0				0.0	21.3	14.1
LnGrp LOS				C	F	A				A	C	B
Approach Vol, veh/h					1025						2272	
Approach Delay, s/veh					91.2						20.5	
Approach LOS					F						C	

Timer - Assigned Phs		2		4					
Phs Duration (G+Y+Rc), s		40.0		50.0					
Change Period (Y+Rc), s		* 5.4		* 4.9					
Max Green Setting (Gmax), s		* 35		* 45					
Max Q Clear Time (g_c+I1), s		36.6		31.8					
Green Ext Time (p_c), s		0.0		11.1					

Intersection Summary			
HCM 6th Ctrl Delay			42.5
HCM 6th LOS			D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	211	232	0	0	0	0	0	0	145	1830	0
Future Volume (veh/h)	0	211	232	0	0	0	0	0	0	145	1830	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	229	252							158	1989	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	625	557							229	2464	0
Arrive On Green	0.00	0.35	0.35							0.18	0.18	0.00
Sat Flow, veh/h	0	1870	1585							333	4682	0
Grp Volume(v), veh/h	0	229	252							790	1357	0
Grp Sat Flow(s),veh/h/ln	0	1777	1585							1764	1549	0
Q Serve(g_s), s	0.0	8.6	11.0							36.2	37.8	0.0
Cycle Q Clear(g_c), s	0.0	8.6	11.0							38.8	37.8	0.0
Prop In Lane	0.00		1.00							0.20		0.00
Lane Grp Cap(c), veh/h	0	625	557							1008	1685	0
V/C Ratio(X)	0.00	0.37	0.45							0.78	0.81	0.00
Avail Cap(c_a), veh/h	0	625	557							1036	1735	0
HCM Platoon Ratio	1.00	1.00	1.00							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							0.57	0.57	0.00
Uniform Delay (d), s/veh	0.0	21.7	22.5							32.7	32.3	0.0
Incr Delay (d2), s/veh	0.0	1.7	2.6							2.3	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	0.0	5.8	6.6							22.2	19.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	23.4	25.1							34.9	34.0	0.0
LnGrp LOS	A	C	C							C	C	A
Approach Vol, veh/h		481									2147	
Approach Delay, s/veh		24.3									34.3	
Approach LOS		C									C	

Timer - Assigned Phs		2		4					
Phs Duration (G+Y+Rc), s		36.4		53.6					
Change Period (Y+Rc), s		* 4.8		* 4.6					
Max Green Setting (Gmax), s		* 30		* 50					
Max Q Clear Time (g_c+I1), s		13.0		40.8					
Green Ext Time (p_c), s		2.8		8.2					

Intersection Summary	
HCM 6th Ctrl Delay	32.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	596	150	419	1509	0	0	0	0
Future Volume (veh/h)	0	0	0	0	596	150	419	1509	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	648	163	455	1640	0			
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	569	143	550	1871	0			
Arrive On Green				0.00	0.39	0.39	0.17	0.17	0.00			
Sat Flow, veh/h				0	1442	363	961	3853	0			
Grp Volume(v), veh/h				0	0	811	740	1355	0			
Grp Sat Flow(s),veh/h/ln				0	0	1805	1563	1549	0			
Q Serve(g_s), s				0.0	0.0	35.5	42.1	38.3	0.0			
Cycle Q Clear(g_c), s				0.0	0.0	35.5	42.1	38.3	0.0			
Prop In Lane				0.00		0.20	0.61		0.00			
Lane Grp Cap(c), veh/h				0	0	712	855	1566	0			
V/C Ratio(X)				0.00	0.00	1.14	0.87	0.87	0.00			
Avail Cap(c_a), veh/h				0	0	712	855	1566	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	0.0	27.3	36.1	34.5	0.0			
Incr Delay (d2), s/veh				0.0	0.0	79.0	11.4	6.6	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln				0.0	0.0	39.0	24.8	21.5	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	106.2	47.5	41.2	0.0			
LnGrp LOS				A	A	F	D	D	A			
Approach Vol, veh/h					811			2095				
Approach Delay, s/veh					106.2			43.4				
Approach LOS					F			D				

Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		40.0						50.0				
Change Period (Y+Rc), s		4.5						4.5				
Max Green Setting (Gmax), s		35.5						45.5				
Max Q Clear Time (g_c+I1), s		37.5						44.1				
Green Ext Time (p_c), s		0.0						1.3				

Intersection Summary		
HCM 6th Ctrl Delay		60.9
HCM 6th LOS		E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	243	0	0	0	0	0	1869	91	0	0	0
Future Volume (veh/h)	170	243	0	0	0	0	0	1869	91	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	185	264	0				0	2032	99			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	530	760	0				0	2581	801			
Arrive On Green	0.13	0.13	0.00				0.00	0.51	0.51			
Sat Flow, veh/h	1170	2028	0				0	5274	1585			
Grp Volume(v), veh/h	232	217	0				0	2032	99			
Grp Sat Flow(s),veh/h/ln	1497	1617	0				0	1702	1585			
Q Serve(g_s), s	12.2	11.0	0.0				0.0	29.4	3.0			
Cycle Q Clear(g_c), s	12.7	11.0	0.0				0.0	29.4	3.0			
Prop In Lane	0.80		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	657	632	0				0	2581	801			
V/C Ratio(X)	0.35	0.34	0.00				0.00	0.79	0.12			
Avail Cap(c_a), veh/h	657	632	0				0	2581	801			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.16	0.16			
Uniform Delay (d), s/veh	29.4	28.6	0.0				0.0	18.3	11.7			
Incr Delay (d2), s/veh	1.5	1.5	0.0				0.0	0.4	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	7.8	7.3	0.0				0.0	12.1	1.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.8	30.1	0.0				0.0	18.7	11.8			
LnGrp LOS	C	C	A				A	B	B			
Approach Vol, veh/h		449						2131				
Approach Delay, s/veh		30.5						18.4				
Approach LOS		C						B				

Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		40.0						50.0				
Change Period (Y+Rc), s		* 4.8						4.5				
Max Green Setting (Gmax), s		* 35						45.5				
Max Q Clear Time (g_c+I1), s		14.7						31.4				
Green Ext Time (p_c), s		2.6						11.4				

Intersection Summary			
HCM 6th Ctrl Delay			20.5
HCM 6th LOS			C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	573	0	0	865	127	167	1683	160	0	0	0
Future Volume (veh/h)	137	573	0	0	865	127	167	1683	160	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	149	623	0	0	940	138	182	1829	174			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	166	892	0	0	1475	216	183	1970	650			
Arrive On Green	0.95	0.95	0.00	0.00	0.47	0.47	0.41	0.41	0.41			
Sat Flow, veh/h	220	1964	0	0	3202	456	447	4805	1585			
Grp Volume(v), veh/h	276	496	0	0	537	541	753	1258	174			
Grp Sat Flow(s),veh/h/ln	482	1617	0	0	1777	1788	1848	1702	1585			
Q Serve(g_s), s	22.2	3.6	0.0	0.0	20.5	20.5	36.5	31.1	6.5			
Cycle Q Clear(g_c), s	42.7	3.6	0.0	0.0	20.5	20.5	36.5	31.1	6.5			
Prop In Lane	0.54		0.00	0.00		0.26	0.24		1.00			
Lane Grp Cap(c), veh/h	290	767	0	0	843	848	758	1396	650			
V/C Ratio(X)	0.95	0.65	0.00	0.00	0.64	0.64	0.99	0.90	0.27			
Avail Cap(c_a), veh/h	290	767	0	0	843	848	758	1396	650			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	12.1	1.3	0.0	0.0	17.8	17.8	26.4	24.8	17.6			
Incr Delay (d2), s/veh	39.9	1.9	0.0	0.0	3.7	3.6	31.0	8.4	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	10.5	1.6	0.0	0.0	11.8	11.9	26.4	17.3	4.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.1	3.2	0.0	0.0	21.5	21.5	57.4	33.2	17.8			
LnGrp LOS	D	A	A	A	C	C	E	C	B			
Approach Vol, veh/h		772			1078			2185				
Approach Delay, s/veh		20.7			21.5			40.4				
Approach LOS		C			C			D				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		48.0				48.0		42.0				
Change Period (Y+Rc), s		* 5.3				* 5.3		5.1				
Max Green Setting (Gmax), s		* 43				* 43		36.9				
Max Q Clear Time (g_c+I1), s		22.5				44.7		38.5				
Green Ext Time (p_c), s		7.4				0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay			31.5
HCM 6th LOS			C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	160	453	0	0	0	0	0	874	156
Future Volume (veh/h)	0	0	0	160	453	0	0	0	0	0	874	156
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				174	492	0				0	950	170
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				745	698	0				0	2615	812
Arrive On Green				0.37	0.37	0.00				0.00	0.51	0.51
Sat Flow, veh/h				1781	1870	0				0	5274	1585
Grp Volume(v), veh/h				174	492	0				0	950	170
Grp Sat Flow(s),veh/h/ln				1781	1870	0				0	1702	1585
Q Serve(g_s), s				6.1	20.1	0.0				0.0	10.0	5.3
Cycle Q Clear(g_c), s				6.1	20.1	0.0				0.0	10.0	5.3
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				745	698	0				0	2615	812
V/C Ratio(X)				0.23	0.70	0.00				0.00	0.36	0.21
Avail Cap(c_a), veh/h				745	698	0				0	2615	812
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				19.6	24.0	0.0				0.0	13.2	12.0
Incr Delay (d2), s/veh				0.7	5.9	0.0				0.0	0.4	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln				4.3	12.9	0.0				0.0	5.7	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				20.3	29.9	0.0				0.0	13.5	12.6
LnGrp LOS				C	C	A				A	B	B
Approach Vol, veh/h					666						1120	
Approach Delay, s/veh					27.4						13.4	
Approach LOS					C						B	

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		39.0		51.0								
Change Period (Y+Rc), s		* 5.4		* 4.9								
Max Green Setting (Gmax), s		* 34		* 46								
Max Q Clear Time (g_c+I1), s		22.1		12.0								
Green Ext Time (p_c), s		2.9		8.9								

Intersection Summary				
HCM 6th Ctrl Delay			18.6	
HCM 6th LOS			B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	214	170	0	0	0	0	0	0	239	852	0
Future Volume (veh/h)	0	214	170	0	0	0	0	0	0	239	852	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	233	185							260	926	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	944	718							441	1374	0
Arrive On Green	0.00	0.49	0.49							0.37	0.37	0.00
Sat Flow, veh/h	0	2016	1462							963	3850	0
Grp Volume(v), veh/h	0	215	203							422	764	0
Grp Sat Flow(s),veh/h/ln	0	1777	1607							1563	1549	0
Q Serve(g_s), s	0.0	4.9	5.2							16.3	14.4	0.0
Cycle Q Clear(g_c), s	0.0	4.9	5.2							16.3	14.4	0.0
Prop In Lane	0.00		0.91							0.62		0.00
Lane Grp Cap(c), veh/h	0	873	789							664	1151	0
V/C Ratio(X)	0.00	0.25	0.26							0.64	0.66	0.00
Avail Cap(c_a), veh/h	0	873	789							891	1602	0
HCM Platoon Ratio	1.00	1.00	1.00							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							0.95	0.95	0.00
Uniform Delay (d), s/veh	0.0	10.3	10.4							18.9	18.3	0.0
Incr Delay (d2), s/veh	0.0	0.7	0.8							1.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	0.0	3.3	3.2							8.0	7.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	11.0	11.2							19.9	19.0	0.0
LnGrp LOS	A	B	B							B	B	A
Approach Vol, veh/h		418									1186	
Approach Delay, s/veh		11.1									19.3	
Approach LOS		B									B	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	39.2	30.8
Change Period (Y+Rc), s	* 4.8	* 4.8
Max Green Setting (Gmax), s	* 24	* 36
Max Q Clear Time (g_c+I1), s	7.2	18.3
Green Ext Time (p_c), s	2.4	7.8

Intersection Summary	
HCM 6th Ctrl Delay	17.2
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	272	92	345	1977	0	0	0	0
Future Volume (veh/h)	0	0	0	0	272	92	345	1977	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	296	100	375	2149	0			
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	501	169	399	2010	0			
Arrive On Green				0.00	0.37	0.37	0.16	0.16	0.00			
Sat Flow, veh/h				0	1337	452	665	4244	0			
Grp Volume(v), veh/h				0	0	396	935	1589	0			
Grp Sat Flow(s),veh/h/ln				0	0	1789	1658	1549	0			
Q Serve(g_s), s				0.0	0.0	12.5	34.4	34.4	0.0			
Cycle Q Clear(g_c), s				0.0	0.0	12.5	34.4	34.4	0.0			
Prop In Lane				0.00		0.25	0.40		0.00			
Lane Grp Cap(c), veh/h				0	0	670	887	1522	0			
V/C Ratio(X)				0.00	0.00	0.59	1.05	1.04	0.00			
Avail Cap(c_a), veh/h				0	0	670	887	1522	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	0.0	17.6	30.7	29.3	0.0			
Incr Delay (d2), s/veh				0.0	0.0	3.8	45.6	35.4	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln				0.0	0.0	7.8	34.5	27.1	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	21.4	76.4	64.7	0.0			
LnGrp LOS				A	A	C	F	F	A			
Approach Vol, veh/h					396			2524				
Approach Delay, s/veh					21.4			69.0				
Approach LOS					C			E				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		31.0						39.0				
Change Period (Y+Rc), s		* 4.8						4.6				
Max Green Setting (Gmax), s		* 26						34.4				
Max Q Clear Time (g_c+I1), s		14.5						36.4				
Green Ext Time (p_c), s		1.9						0.0				
Intersection Summary												
HCM 6th Ctrl Delay			62.6									
HCM 6th LOS			E									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	197	271	0	0	0	0	0	1876	106	0	0	0
Future Volume (veh/h)	197	271	0	0	0	0	0	1876	106	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	214	295	0				0	2039	115			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	587	803	0				0	2298	713			
Arrive On Green	0.14	0.14	0.00				0.00	0.45	0.45			
Sat Flow, veh/h	1184	2010	0				0	5274	1585			
Grp Volume(v), veh/h	264	245	0				0	2039	115			
Grp Sat Flow(s),veh/h/ln	1492	1617	0				0	1702	1585			
Q Serve(g_s), s	10.8	9.6	0.0				0.0	25.6	3.0			
Cycle Q Clear(g_c), s	11.3	9.6	0.0				0.0	25.6	3.0			
Prop In Lane	0.81		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	715	674	0				0	2298	713			
V/C Ratio(X)	0.37	0.36	0.00				0.00	0.89	0.16			
Avail Cap(c_a), veh/h	715	674	0				0	2298	713			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.37	0.37			
Uniform Delay (d), s/veh	22.4	21.7	0.0				0.0	17.6	11.4			
Incr Delay (d2), s/veh	1.5	1.5	0.0				0.0	2.2	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	7.0	6.4	0.0				0.0	11.2	1.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.9	23.3	0.0				0.0	19.8	11.6			
LnGrp LOS	C	C	A				A	B	B			
Approach Vol, veh/h		509						2154				
Approach Delay, s/veh		23.6						19.4				
Approach LOS		C						B				

Timer - Assigned Phs	2	8
Phs Duration (G+Y+Rc), s	34.0	36.0
Change Period (Y+Rc), s	* 4.8	4.5
Max Green Setting (Gmax), s	* 29	31.5
Max Q Clear Time (g_c+I1), s	13.3	27.6
Green Ext Time (p_c), s	2.7	3.5

Intersection Summary	
HCM 6th Ctrl Delay	20.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	584	0	0	594	140	197	1597	70	0	0	0
Future Volume (veh/h)	137	584	0	0	594	140	197	1597	70	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	149	635	0	0	646	152	214	1736	76			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	194	931	0	0	1279	301	236	2054	692			
Arrive On Green	0.45	0.45	0.00	0.00	0.45	0.45	0.44	0.44	0.44			
Sat Flow, veh/h	304	2164	0	0	2949	671	541	4706	1585			
Grp Volume(v), veh/h	326	458	0	0	402	396	728	1222	76			
Grp Sat Flow(s),veh/h/ln	766	1617	0	0	1777	1750	1843	1702	1585			
Q Serve(g_s), s	23.6	19.7	0.0	0.0	14.5	14.6	33.1	28.4	2.6			
Cycle Q Clear(g_c), s	38.1	19.7	0.0	0.0	14.5	14.6	33.1	28.4	2.6			
Prop In Lane	0.46		0.00	0.00		0.38	0.29		1.00			
Lane Grp Cap(c), veh/h	401	724	0	0	796	784	804	1486	692			
V/C Ratio(X)	0.81	0.63	0.00	0.00	0.50	0.51	0.91	0.82	0.11			
Avail Cap(c_a), veh/h	401	724	0	0	796	784	817	1509	703			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	27.8	19.1	0.0	0.0	17.7	17.7	23.6	22.3	15.0			
Incr Delay (d2), s/veh	11.9	1.8	0.0	0.0	2.3	2.3	13.5	3.8	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	10.8	10.2	0.0	0.0	8.7	8.7	20.7	15.0	1.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.7	20.9	0.0	0.0	20.0	20.1	37.1	26.0	15.1			
LnGrp LOS	D	C	A	A	B	C	D	C	B			
Approach Vol, veh/h		784			798			2026				
Approach Delay, s/veh		28.7			20.0			29.6				
Approach LOS		C			C			C				

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		45.6				45.6		44.4				
Change Period (Y+Rc), s		* 5.3				* 5.3		5.1				
Max Green Setting (Gmax), s		* 40				* 40		39.9				
Max Q Clear Time (g_c+I1), s		16.6				40.1		35.1				
Green Ext Time (p_c), s		5.4				0.0		4.1				

Intersection Summary			
HCM 6th Ctrl Delay			27.3
HCM 6th LOS			C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	219	798	0	0	0	0	0	1900	218
Future Volume (veh/h)	0	0	0	219	798	0	0	0	0	0	1900	218
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				238	867	0				0	2065	237
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				765	719	0				0	2559	794
Arrive On Green				0.38	0.38	0.00				0.00	0.50	0.50
Sat Flow, veh/h				1781	1870	0				0	5274	1585
Grp Volume(v), veh/h				238	867	0				0	2065	237
Grp Sat Flow(s),veh/h/ln				1781	1870	0				0	1702	1585
Q Serve(g_s), s				8.5	34.6	0.0				0.0	30.5	7.9
Cycle Q Clear(g_c), s				8.5	34.6	0.0				0.0	30.5	7.9
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				765	719	0				0	2559	794
V/C Ratio(X)				0.31	1.21	0.00				0.00	0.81	0.30
Avail Cap(c_a), veh/h				765	719	0				0	2559	794
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				19.7	27.7	0.0				0.0	18.8	13.2
Incr Delay (d2), s/veh				1.1	105.5	0.0				0.0	2.8	1.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln				5.6	47.2	0.0				0.0	15.3	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				20.7	133.2	0.0				0.0	21.7	14.1
LnGrp LOS				C	F	A				A	C	B
Approach Vol, veh/h					1105						2302	
Approach Delay, s/veh					109.0						20.9	
Approach LOS					F						C	

Timer - Assigned Phs		2		4
Phs Duration (G+Y+Rc), s		40.0		50.0
Change Period (Y+Rc), s		* 5.4		* 4.9
Max Green Setting (Gmax), s		* 35		* 45
Max Q Clear Time (g_c+I1), s		36.6		32.5
Green Ext Time (p_c), s		0.0		10.7

Intersection Summary	
HCM 6th Ctrl Delay	49.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	284	232	0	0	0	0	0	0	177	1859	0
Future Volume (veh/h)	0	284	232	0	0	0	0	0	0	177	1859	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	309	252							192	2021	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	631	502							274	2486	0
Arrive On Green	0.00	0.34	0.34							0.18	0.18	0.00
Sat Flow, veh/h	0	1975	1497							400	4593	0
Grp Volume(v), veh/h	0	291	270							812	1401	0
Grp Sat Flow(s),veh/h/ln	0	1777	1601							1742	1549	0
Q Serve(g_s), s	0.0	11.7	12.1							39.1	39.0	0.0
Cycle Q Clear(g_c), s	0.0	11.7	12.1							40.4	39.0	0.0
Prop In Lane	0.00		0.93							0.24		0.00
Lane Grp Cap(c), veh/h	0	596	537							1025	1735	0
V/C Ratio(X)	0.00	0.49	0.50							0.79	0.81	0.00
Avail Cap(c_a), veh/h	0	596	537							1025	1735	0
HCM Platoon Ratio	1.00	1.00	1.00							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							0.56	0.56	0.00
Uniform Delay (d), s/veh	0.0	23.8	23.9							32.6	32.0	0.0
Incr Delay (d2), s/veh	0.0	2.9	3.3							3.6	2.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	0.0	7.6	7.3							23.2	19.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	26.6	27.2							36.2	34.4	0.0
LnGrp LOS	A	C	C							D	C	A
Approach Vol, veh/h		561									2213	
Approach Delay, s/veh		26.9									35.1	
Approach LOS		C									D	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		35.0		55.0								
Change Period (Y+Rc), s		* 4.8		* 4.6								
Max Green Setting (Gmax), s		* 30		* 50								
Max Q Clear Time (g_c+I1), s		14.1		42.4								
Green Ext Time (p_c), s		3.2		7.0								

Intersection Summary			
HCM 6th Ctrl Delay			33.4
HCM 6th LOS			C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	613	150	495	1563	0	0	0	0
Future Volume (veh/h)	0	0	0	0	613	150	495	1563	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	666	163	538	1699	0			
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	572	140	593	1818	0			
Arrive On Green				0.00	0.39	0.39	0.17	0.17	0.00			
Sat Flow, veh/h				0	1451	355	1040	3749	0			
Grp Volume(v), veh/h				0	0	829	795	1442	0			
Grp Sat Flow(s),veh/h/ln				0	0	1806	1538	1549	0			
Q Serve(g_s), s				0.0	0.0	35.5	45.5	41.2	0.0			
Cycle Q Clear(g_c), s				0.0	0.0	35.5	45.5	41.2	0.0			
Prop In Lane				0.00		0.20	0.68		0.00			
Lane Grp Cap(c), veh/h				0	0	713	845	1566	0			
V/C Ratio(X)				0.00	0.00	1.16	0.94	0.92	0.00			
Avail Cap(c_a), veh/h				0	0	713	845	1566	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	0.0	27.3	38.0	35.7	0.0			
Incr Delay (d2), s/veh				0.0	0.0	88.5	19.7	10.3	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln				0.0	0.0	41.8	28.7	23.7	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	115.7	57.7	46.0	0.0			
LnGrp LOS				A	A	F	E	D	A			
Approach Vol, veh/h					829			2237				
Approach Delay, s/veh					115.7			50.2				
Approach LOS					F			D				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		40.0						50.0				
Change Period (Y+Rc), s		4.5						4.5				
Max Green Setting (Gmax), s		35.5						45.5				
Max Q Clear Time (g_c+I1), s		37.5						47.5				
Green Ext Time (p_c), s		0.0						0.0				
Intersection Summary												
HCM 6th Ctrl Delay			67.9									
HCM 6th LOS			E									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	271	273	0	0	0	0	0	1976	91	0	0	0
Future Volume (veh/h)	271	273	0	0	0	0	0	1976	91	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	295	297	0				0	2148	99			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	625	644	0				0	2581	801			
Arrive On Green	0.13	0.13	0.00				0.00	0.51	0.51			
Sat Flow, veh/h	1395	1732	0				0	5274	1585			
Grp Volume(v), veh/h	301	291	0				0	2148	99			
Grp Sat Flow(s),veh/h/ln	1425	1617	0				0	1702	1585			
Q Serve(g_s), s	17.8	15.0	0.0				0.0	32.3	3.0			
Cycle Q Clear(g_c), s	17.8	15.0	0.0				0.0	32.3	3.0			
Prop In Lane	0.98		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	636	632	0				0	2581	801			
V/C Ratio(X)	0.47	0.46	0.00				0.00	0.83	0.12			
Avail Cap(c_a), veh/h	636	632	0				0	2581	801			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.10	0.10			
Uniform Delay (d), s/veh	31.6	30.4	0.0				0.0	19.0	11.7			
Incr Delay (d2), s/veh	2.5	2.4	0.0				0.0	0.3	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	10.0	9.6	0.0				0.0	12.9	1.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	32.8	0.0				0.0	19.3	11.8			
LnGrp LOS	C	C	A				A	B	B			
Approach Vol, veh/h		592						2247				
Approach Delay, s/veh		33.5						19.0				
Approach LOS		C						B				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		40.0						50.0				
Change Period (Y+Rc), s		* 4.8						4.5				
Max Green Setting (Gmax), s		* 35						45.5				
Max Q Clear Time (g_c+I1), s		19.8						34.3				
Green Ext Time (p_c), s		3.2						9.6				
Intersection Summary												
HCM 6th Ctrl Delay			22.0									
HCM 6th LOS			C									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	573	0	0	868	177	167	1737	160	0	0	0
Future Volume (veh/h)	139	573	0	0	868	177	167	1737	160	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	151	623	0	0	943	192	182	1888	174			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	156	870	0	0	1395	284	178	1976	650			
Arrive On Green	0.95	0.95	0.00	0.00	0.47	0.47	0.41	0.41	0.41			
Sat Flow, veh/h	197	1918	0	0	3035	598	434	4819	1585			
Grp Volume(v), veh/h	266	508	0	0	569	566	775	1295	174			
Grp Sat Flow(s),veh/h/ln	413	1617	0	0	1777	1763	1849	1702	1585			
Q Serve(g_s), s	20.3	3.9	0.0	0.0	22.3	22.4	36.9	32.6	6.5			
Cycle Q Clear(g_c), s	42.7	3.9	0.0	0.0	22.3	22.4	36.9	32.6	6.5			
Prop In Lane	0.57		0.00	0.00		0.34	0.23		1.00			
Lane Grp Cap(c), veh/h	259	767	0	0	843	836	758	1396	650			
V/C Ratio(X)	1.03	0.66	0.00	0.00	0.68	0.68	1.02	0.93	0.27			
Avail Cap(c_a), veh/h	259	767	0	0	843	836	758	1396	650			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	15.0	1.3	0.0	0.0	18.3	18.3	26.6	25.3	17.6			
Incr Delay (d2), s/veh	63.4	2.1	0.0	0.0	4.3	4.4	38.6	11.0	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	12.3	1.8	0.0	0.0	12.8	12.8	28.8	18.5	4.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.4	3.4	0.0	0.0	22.6	22.7	65.2	36.2	17.8			
LnGrp LOS	F	A	A	A	C	C	F	D	B			
Approach Vol, veh/h		774			1135			2244				
Approach Delay, s/veh		29.2			22.6			44.8				
Approach LOS		C			C			D				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		48.0				48.0		42.0				
Change Period (Y+Rc), s		* 5.3				* 5.3		5.1				
Max Green Setting (Gmax), s		* 43				* 43		36.9				
Max Q Clear Time (g_c+I1), s		24.4				44.7		38.9				
Green Ext Time (p_c), s		7.6				0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			35.8									
HCM 6th LOS			D									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	16974	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1		Major2	
Conflicting Flow All	1	-	0	0
Stage 1	0	-	-	-
Stage 2	1	-	-	-
Critical Hdwy	6.42	-	4.12	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-
Follow-up Hdwy	3.518	-	2.218	-
Pot Cap-1 Maneuver	1022	0	-	-
Stage 1	-	0	-	-
Stage 2	1022	0	-	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	1022	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-
Stage 1	-	-	-	-
Stage 2	1022	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	0	-
HCM Lane LOS	A	A	-
HCM 95th %tile Q(veh)	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	1402	0	0
Future Vol, veh/h	0	0	0	1402	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	16965	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	1524	0	0

Major/Minor	Minor2		Major1	
Conflicting Flow All	610	-	0	0
Stage 1	0	-	-	-
Stage 2	610	-	-	-
Critical Hdwy	5.74	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-
Follow-up Hdwy	3.82	-	3.12	-
Pot Cap-1 Maneuver	484	0	-	-
Stage 1	-	0	-	-
Stage 2	460	0	-	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	484	-	-	-
Mov Cap-2 Maneuver	484	-	-	-
Stage 1	-	-	-	-
Stage 2	460	-	-	-

Approach	EB	NB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBL	NBT	EBLn1
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	-	0
HCM Lane LOS	A	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	1402	0	0	0
Future Vol, veh/h	0	0	1402	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	16979
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1524	0	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	762	0	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	7.14	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	3.92	-	-
Pot Cap-1 Maneuver	0	298	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	-	298	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	NBR	WBLn1
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	0					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑			↰	
Traffic Vol, veh/h	0	279	0	0	0	0
Future Vol, veh/h	0	279	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	16983	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	303	0	0	0	0

Major/Minor	Major1				Minor2	
Conflicting Flow All	-	0			152	-
Stage 1	-	-			0	-
Stage 2	-	-			152	-
Critical Hdwy	-	-			6.84	-
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			5.84	-
Follow-up Hdwy	-	-			3.52	-
Pot Cap-1 Maneuver	0	-			825	0
Stage 1	0	-			-	0
Stage 2	0	-			860	0
Platoon blocked, %		-				
Mov Cap-1 Maneuver	-	-			825	-
Mov Cap-2 Maneuver	-	-			825	-
Stage 1	-	-			-	-
Stage 2	-	-			860	-

Approach	EB				SB	
HCM Control Delay, s	0				0	
HCM LOS					A	

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	-
HCM Lane V/C Ratio	-	-
HCM Control Delay (s)	-	0
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16974	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2			Major2	
Conflicting Flow All	-	1		-	0
Stage 1	-	-		-	-
Stage 2	-	-		-	-
Critical Hdwy	-	6.22		-	-
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	-	-		-	-
Follow-up Hdwy	-	3.318		-	-
Pot Cap-1 Maneuver	0	1084		-	-
Stage 1	0	-		-	-
Stage 2	0	-		-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	1084		-	-
Mov Cap-2 Maneuver	-	-		-	-
Stage 1	-	-		-	-
Stage 2	-	-		-	-

Approach	EB	SB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	16974	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1		Major2	
Conflicting Flow All	1	-	0	0
Stage 1	0	-	-	-
Stage 2	1	-	-	-
Critical Hdwy	6.42	-	4.12	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-
Follow-up Hdwy	3.518	-	2.218	-
Pot Cap-1 Maneuver	1022	0	-	-
Stage 1	-	0	-	-
Stage 2	1022	0	-	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	1022	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-
Stage 1	-	-	-	-
Stage 2	1022	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	0	-
HCM Lane LOS	A	A	-
HCM 95th %tile Q(veh)	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	1184	0	0
Future Vol, veh/h	0	0	0	1184	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	16965	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	1287	0	0

Major/Minor	Minor2		Major1	
Conflicting Flow All	515	-	0	0
Stage 1	0	-	-	-
Stage 2	515	-	-	-
Critical Hdwy	5.74	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-
Follow-up Hdwy	3.82	-	3.12	-
Pot Cap-1 Maneuver	538	0	-	-
Stage 1	-	0	-	-
Stage 2	516	0	-	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	538	-	-	-
Mov Cap-2 Maneuver	538	-	-	-
Stage 1	-	-	-	-
Stage 2	516	-	-	-

Approach	EB		NB
HCM Control Delay, s	0		0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	-	0
HCM Lane LOS	A	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	0					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	1184	0	0	0
Future Vol, veh/h	0	0	1184	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	16979
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1287	0	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	644	0	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	7.14	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	3.92	-	-
Pot Cap-1 Maneuver	0	356	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	-	356	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	NBR	WBLn1
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑			↰	
Traffic Vol, veh/h	0	239	0	0	0	0
Future Vol, veh/h	0	239	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	16983	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	260	0	0	0	0

Major/Minor	Major1				Minor2	
Conflicting Flow All	-	0			130	-
Stage 1	-	-			0	-
Stage 2	-	-			130	-
Critical Hdwy	-	-			6.84	-
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			5.84	-
Follow-up Hdwy	-	-			3.52	-
Pot Cap-1 Maneuver	0	-			851	0
Stage 1	0	-			-	0
Stage 2	0	-			882	0
Platoon blocked, %		-				
Mov Cap-1 Maneuver	-	-			851	-
Mov Cap-2 Maneuver	-	-			851	-
Stage 1	-	-			-	-
Stage 2	-	-			882	-

Approach	EB	SB
HCM Control Delay, s	0	0
HCM LOS		A

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	-
HCM Lane V/C Ratio	-	-
HCM Control Delay (s)	-	0
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	-

Intersection						
Int Delay, s/veh	0					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16974	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2			Major2	
Conflicting Flow All	-	1		-	0
Stage 1	-	-		-	-
Stage 2	-	-		-	-
Critical Hdwy	-	6.22		-	-
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	-	-		-	-
Follow-up Hdwy	-	3.318		-	-
Pot Cap-1 Maneuver	0	1084		-	-
Stage 1	0	-		-	-
Stage 2	0	-		-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	1084		-	-
Mov Cap-2 Maneuver	-	-		-	-
Stage 1	-	-		-	-
Stage 2	-	-		-	-

Approach	EB	SB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	7					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	36	0	0	0	6	3
Future Vol, veh/h	36	0	0	0	6	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	16974	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	0	0	0	7	3

Major/Minor	Minor1			Major2	
Conflicting Flow All	17	-		0	0
Stage 1	0	-		-	-
Stage 2	17	-		-	-
Critical Hdwy	6.42	-		4.12	-
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	5.42	-		-	-
Follow-up Hdwy	3.518	-		2.218	-
Pot Cap-1 Maneuver	1001	0		-	-
Stage 1	-	0		-	-
Stage 2	1006	0		-	-
Platoon blocked, %					-
Mov Cap-1 Maneuver	1001	-		-	-
Mov Cap-2 Maneuver	1001	-		-	-
Stage 1	-	-		-	-
Stage 2	1006	-		-	-

Approach	WB	SB
HCM Control Delay, s	8.7	
HCM LOS	A	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	1001	-	-
HCM Lane V/C Ratio	0.039	-	-
HCM Control Delay (s)	8.7	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Intersection						
Int Delay, s/veh	0.6					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	61	0	34	1402	0	0
Future Vol, veh/h	61	0	34	1402	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	16965	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	0	37	1524	0	0

Major/Minor	Minor2		Major1	
Conflicting Flow All	684	-	0	0
Stage 1	0	-	-	-
Stage 2	684	-	-	-
Critical Hdwy	5.74	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-
Follow-up Hdwy	3.82	-	3.12	-
Pot Cap-1 Maneuver	445	0	-	-
Stage 1	-	0	-	-
Stage 2	421	0	-	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	445	-	-	-
Mov Cap-2 Maneuver	445	-	-	-
Stage 1	-	-	-	-
Stage 2	421	-	-	-

Approach	EB	NB
HCM Control Delay, s	14.5	
HCM LOS	B	

Minor Lane/Major Mvmt	NBL	NBT	EBLn1
Capacity (veh/h)	-	-	445
HCM Lane V/C Ratio	-	-	0.149
HCM Control Delay (s)	-	-	14.5
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.5

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	1436	0	0	0
Future Vol, veh/h	0	0	1436	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	16979
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1561	0	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	781	0	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	7.14	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	3.92	-	-
Pot Cap-1 Maneuver	0	290	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	-	290	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	NBR	WBLn1
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	1.1					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑			↰	
Traffic Vol, veh/h	0	290	0	0	39	0
Future Vol, veh/h	0	290	0	0	39	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	16983	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	315	0	0	42	0

Major/Minor	Major1				Minor2	
Conflicting Flow All	-	0			158	-
Stage 1	-	-			0	-
Stage 2	-	-			158	-
Critical Hdwy	-	-			6.84	-
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			5.84	-
Follow-up Hdwy	-	-			3.52	-
Pot Cap-1 Maneuver	0	-			818	0
Stage 1	0	-			-	0
Stage 2	0	-			854	0
Platoon blocked, %		-				
Mov Cap-1 Maneuver	-	-			818	-
Mov Cap-2 Maneuver	-	-			818	-
Stage 1	-	-			-	-
Stage 2	-	-			854	-

Approach	EB	SB
HCM Control Delay, s	0	9.6
HCM LOS		A

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	818
HCM Lane V/C Ratio	-	0.052
HCM Control Delay (s)	-	9.6
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0.2

Intersection	
Int Delay, s/veh	4.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	0	0	0	17	2
Future Vol, veh/h	24	0	0	0	17	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	16974	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	0	0	0	18	2

Major/Minor	Minor1				Major2	
Conflicting Flow All	38	-			0	0
Stage 1	0	-			-	-
Stage 2	38	-			-	-
Critical Hdwy	6.42	-			4.12	-
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	5.42	-			-	-
Follow-up Hdwy	3.518	-			2.218	-
Pot Cap-1 Maneuver	974	0			-	-
Stage 1	-	0			-	-
Stage 2	984	0			-	-
Platoon blocked, %						-
Mov Cap-1 Maneuver	974	-			-	-
Mov Cap-2 Maneuver	974	-			-	-
Stage 1	-	-			-	-
Stage 2	984	-			-	-

Approach	WB	SB
HCM Control Delay, s	8.8	
HCM LOS	A	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	974	-	-
HCM Lane V/C Ratio	0.027	-	-
HCM Control Delay (s)	8.8	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	41	0	88	1184	0	0
Future Vol, veh/h	41	0	88	1184	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	16965	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	0	96	1287	0	0

Major/Minor	Minor2		Major1	
Conflicting Flow All	707	-	0	0
Stage 1	0	-	-	-
Stage 2	707	-	-	-
Critical Hdwy	5.74	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-
Follow-up Hdwy	3.82	-	3.12	-
Pot Cap-1 Maneuver	434	0	-	-
Stage 1	-	0	-	-
Stage 2	409	0	-	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	434	-	-	-
Mov Cap-2 Maneuver	434	-	-	-
Stage 1	-	-	-	-
Stage 2	409	-	-	-

Approach	EB	NB
HCM Control Delay, s	14.2	
HCM LOS	B	

Minor Lane/Major Mvmt	NBL	NBT	EBLn1
Capacity (veh/h)	-	-	434
HCM Lane V/C Ratio	-	-	0.103
HCM Control Delay (s)	-	-	14.2
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.3

Intersection						
Int Delay, s/veh	0					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	1272	0	0	0
Future Vol, veh/h	0	0	1272	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	16979
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1383	0	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	692	0	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	7.14	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	3.92	-	-
Pot Cap-1 Maneuver	0	331	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	-	331	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	NBR	WBLn1
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	0.8					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑			↰	
Traffic Vol, veh/h	0	267	0	0	26	0
Future Vol, veh/h	0	267	0	0	26	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	16983	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	290	0	0	28	0

Major/Minor	Major1				Minor2	
Conflicting Flow All	-	0			145	-
Stage 1	-	-			0	-
Stage 2	-	-			145	-
Critical Hdwy	-	-			6.84	-
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			5.84	-
Follow-up Hdwy	-	-			3.52	-
Pot Cap-1 Maneuver	0	-			833	0
Stage 1	0	-			-	0
Stage 2	0	-			867	0
Platoon blocked, %		-				
Mov Cap-1 Maneuver	-	-			833	-
Mov Cap-2 Maneuver	-	-			833	-
Stage 1	-	-			-	-
Stage 2	-	-			867	-

Approach	EB	SB
HCM Control Delay, s	0	9.5
HCM LOS		A

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	833
HCM Lane V/C Ratio	-	0.034
HCM Control Delay (s)	-	9.5
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0.1

Intersection	
Int Delay, s/veh	7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	36	0	0	0	6	3
Future Vol, veh/h	36	0	0	0	6	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	16974	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	0	0	0	7	3

Major/Minor	Minor1			Major2	
Conflicting Flow All	17	-		0	0
Stage 1	0	-		-	-
Stage 2	17	-		-	-
Critical Hdwy	6.42	-		4.12	-
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	5.42	-		-	-
Follow-up Hdwy	3.518	-		2.218	-
Pot Cap-1 Maneuver	1001	0		-	-
Stage 1	-	0		-	-
Stage 2	1006	0		-	-
Platoon blocked, %					-
Mov Cap-1 Maneuver	1001	-		-	-
Mov Cap-2 Maneuver	1001	-		-	-
Stage 1	-	-		-	-
Stage 2	1006	-		-	-

Approach	WB	SB
HCM Control Delay, s	8.7	
HCM LOS	A	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	1001	-	-
HCM Lane V/C Ratio	0.039	-	-
HCM Control Delay (s)	8.7	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	61	0	34	1537	0	0
Future Vol, veh/h	61	0	34	1537	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	16965	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	0	37	1671	0	0

Major/Minor	Minor2		Major1	
Conflicting Flow All	742	-	0	0
Stage 1	0	-	-	-
Stage 2	742	-	-	-
Critical Hdwy	5.74	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-
Follow-up Hdwy	3.82	-	3.12	-
Pot Cap-1 Maneuver	417	0	-	-
Stage 1	-	0	-	-
Stage 2	392	0	-	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	417	-	-	-
Mov Cap-2 Maneuver	417	-	-	-
Stage 1	-	-	-	-
Stage 2	392	-	-	-

Approach	EB	NB
HCM Control Delay, s	15.3	
HCM LOS	C	

Minor Lane/Major Mvmt	NBL	NBT	EBLn1
Capacity (veh/h)	-	-	417
HCM Lane V/C Ratio	-	-	0.159
HCM Control Delay (s)	-	-	15.3
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.6

Intersection						
Int Delay, s/veh	2.6					
Movement	**WBL**	**WBR**	**NBT**	**NBR**	**SBL**	**SBT**
Lane Configurations						
Traffic Vol, veh/h	0	135	1436	47	0	0
Future Vol, veh/h	0	135	1436	47	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	16979
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	147	1561	51	0	0
Major/Minor	**Minor1**		**Major1**			
Conflicting Flow All	-	806	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	7.14	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.92	-	-		
Pot Cap-1 Maneuver	0	279	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	279	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	**WB**		**NB**			
HCM Control Delay, s	31.4		0			
HCM LOS	D					
Minor Lane/Major Mvmt		**NBT**	**NBR**	**WBLn1**		
Capacity (veh/h)		-	-	279		
HCM Lane V/C Ratio		-	-	0.526		
HCM Control Delay (s)		-	-	31.4		
HCM Lane LOS		-	-	D		
HCM 95th %tile Q(veh)		-	-	2.8		

Intersection						
Int Delay, s/veh	1.1					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑			↰	
Traffic Vol, veh/h	0	325	0	0	39	0
Future Vol, veh/h	0	325	0	0	39	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	16983	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	353	0	0	42	0

Major/Minor	Major1				Minor2	
Conflicting Flow All	-	0			177	-
Stage 1	-	-			0	-
Stage 2	-	-			177	-
Critical Hdwy	-	-			6.84	-
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			5.84	-
Follow-up Hdwy	-	-			3.52	-
Pot Cap-1 Maneuver	0	-			796	0
Stage 1	0	-			-	0
Stage 2	0	-			836	0
Platoon blocked, %		-				
Mov Cap-1 Maneuver	-	-			796	-
Mov Cap-2 Maneuver	-	-			796	-
Stage 1	-	-			-	-
Stage 2	-	-			836	-

Approach	EB				SB	
HCM Control Delay, s	0				9.8	
HCM LOS					A	

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	796
HCM Lane V/C Ratio	-	0.053
HCM Control Delay (s)	-	9.8
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0.2

Intersection						
Int Delay, s/veh	0					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	10
Future Vol, veh/h	0	0	0	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16974	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	11

Major/Minor	Minor2			Major2	
Conflicting Flow All	-	6		-	0
Stage 1	-	-		-	-
Stage 2	-	-		-	-
Critical Hdwy	-	6.22		-	-
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	-	-		-	-
Follow-up Hdwy	-	3.318		-	-
Pot Cap-1 Maneuver	0	1077		-	-
Stage 1	0	-		-	-
Stage 2	0	-		-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	1077		-	-
Mov Cap-2 Maneuver	-	-		-	-
Stage 1	-	-		-	-
Stage 2	-	-		-	-

Approach	EB	SB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	4.9					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	0	0	0	17	2
Future Vol, veh/h	24	0	0	0	17	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	16974	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	0	0	0	18	2

Major/Minor	Minor1			Major2	
Conflicting Flow All	38	-		0	0
Stage 1	0	-		-	-
Stage 2	38	-		-	-
Critical Hdwy	6.42	-		4.12	-
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	5.42	-		-	-
Follow-up Hdwy	3.518	-		2.218	-
Pot Cap-1 Maneuver	974	0		-	-
Stage 1	-	0		-	-
Stage 2	984	0		-	-
Platoon blocked, %					-
Mov Cap-1 Maneuver	974	-		-	-
Mov Cap-2 Maneuver	974	-		-	-
Stage 1	-	-		-	-
Stage 2	984	-		-	-

Approach	WB	SB
HCM Control Delay, s	8.8	
HCM LOS	A	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	974	-	-
HCM Lane V/C Ratio	0.027	-	-
HCM Control Delay (s)	8.8	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Intersection						
Int Delay, s/veh	0.4					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	41	0	88	1273	0	0
Future Vol, veh/h	41	0	88	1273	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	16965	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	0	96	1384	0	0

Major/Minor	Minor2		Major1	
Conflicting Flow All	746	-	0	0
Stage 1	0	-	-	-
Stage 2	746	-	-	-
Critical Hdwy	5.74	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-
Follow-up Hdwy	3.82	-	3.12	-
Pot Cap-1 Maneuver	415	0	-	-
Stage 1	-	0	-	-
Stage 2	390	0	-	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	415	-	-	-
Mov Cap-2 Maneuver	415	-	-	-
Stage 1	-	-	-	-
Stage 2	390	-	-	-

Approach	EB	NB
HCM Control Delay, s	14.7	
HCM LOS	B	

Minor Lane/Major Mvmt	NBL	NBT	EBLn1
Capacity (veh/h)	-	-	415
HCM Lane V/C Ratio	-	-	0.107
HCM Control Delay (s)	-	-	14.7
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.4

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	89	1272	120	0	0
Future Vol, veh/h	0	89	1272	120	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	16979
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	97	1383	130	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	757	0	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	7.14	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	3.92	-	-
Pot Cap-1 Maneuver	0	300	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	-	300	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Control Delay, s	22.6	0
HCM LOS	C	

Minor Lane/Major Mvmt	NBT	NBR	WBLn1
Capacity (veh/h)	-	-	300
HCM Lane V/C Ratio	-	-	0.322
HCM Control Delay (s)	-	-	22.6
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	1.4

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑			↰	
Traffic Vol, veh/h	0	345	0	0	26	0
Future Vol, veh/h	0	345	0	0	26	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	16983	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	375	0	0	28	0

Major/Minor	Major1				Minor2	
Conflicting Flow All	-	0			188	-
Stage 1	-	-			0	-
Stage 2	-	-			188	-
Critical Hdwy	-	-			6.84	-
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			5.84	-
Follow-up Hdwy	-	-			3.52	-
Pot Cap-1 Maneuver	0	-			783	0
Stage 1	0	-			-	0
Stage 2	0	-			825	0
Platoon blocked, %		-				
Mov Cap-1 Maneuver	-	-			783	-
Mov Cap-2 Maneuver	-	-			783	-
Stage 1	-	-			-	-
Stage 2	-	-			825	-

Approach	EB	SB
HCM Control Delay, s	0	9.8
HCM LOS		A

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	783
HCM Lane V/C Ratio	-	0.036
HCM Control Delay (s)	-	9.8
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0.1

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	26
Future Vol, veh/h	0	0	0	0	0	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16974	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	28

Major/Minor	Minor2				Major2	
Conflicting Flow All	-	14			-	0
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Critical Hdwy	-	6.22			-	-
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			-	-
Follow-up Hdwy	-	3.318			-	-
Pot Cap-1 Maneuver	0	1066			-	-
Stage 1	0	-			-	-
Stage 2	0	-			-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	-	1066			-	-
Mov Cap-2 Maneuver	-	-			-	-
Stage 1	-	-			-	-
Stage 2	-	-			-	-

Approach	EB	SB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	16974	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1				Major2	
Conflicting Flow All	1	-			0	0
Stage 1	0	-			-	-
Stage 2	1	-			-	-
Critical Hdwy	6.42	-			4.12	-
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	5.42	-			-	-
Follow-up Hdwy	3.518	-			2.218	-
Pot Cap-1 Maneuver	1022	0			-	-
Stage 1	-	0			-	-
Stage 2	1022	0			-	-
Platoon blocked, %						-
Mov Cap-1 Maneuver	1022	-			-	-
Mov Cap-2 Maneuver	1022	-			-	-
Stage 1	-	-			-	-
Stage 2	1022	-			-	-

Approach	WB	SB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	0	-
HCM Lane LOS	A	A	-
HCM 95th %tile Q(veh)	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	1474	0	0
Future Vol, veh/h	0	0	0	1474	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	16965	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	1602	0	0

Major/Minor	Minor2		Major1	
Conflicting Flow All	641	-	0	0
Stage 1	0	-	-	-
Stage 2	641	-	-	-
Critical Hdwy	5.74	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-
Follow-up Hdwy	3.82	-	3.12	-
Pot Cap-1 Maneuver	467	0	-	-
Stage 1	-	0	-	-
Stage 2	443	0	-	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	467	-	-	-
Mov Cap-2 Maneuver	467	-	-	-
Stage 1	-	-	-	-
Stage 2	443	-	-	-

Approach	EB	NB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBL	NBT	EBLn1
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	-	0
HCM Lane LOS	A	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	0					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	1474	0	0	0
Future Vol, veh/h	0	0	1474	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	16979
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1602	0	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	801	0	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	7.14	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	3.92	-	-
Pot Cap-1 Maneuver	0	281	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	-	281	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	NBR	WBLn1
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑			↰	
Traffic Vol, veh/h	0	293	0	0	0	0
Future Vol, veh/h	0	293	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	16983	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	318	0	0	0	0

Major/Minor	Major1				Minor2	
Conflicting Flow All	-	0			159	-
Stage 1	-	-			0	-
Stage 2	-	-			159	-
Critical Hdwy	-	-			6.84	-
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			5.84	-
Follow-up Hdwy	-	-			3.52	-
Pot Cap-1 Maneuver	0	-			816	0
Stage 1	0	-			-	0
Stage 2	0	-			853	0
Platoon blocked, %		-				
Mov Cap-1 Maneuver	-	-			816	-
Mov Cap-2 Maneuver	-	-			816	-
Stage 1	-	-			-	-
Stage 2	-	-			853	-

Approach	EB	SB
HCM Control Delay, s	0	0
HCM LOS		A

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	-
HCM Lane V/C Ratio	-	-
HCM Control Delay (s)	-	0
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	-

Intersection						
Int Delay, s/veh	0					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	16974	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1			Major2	
Conflicting Flow All	1	-		0	0
Stage 1	0	-		-	-
Stage 2	1	-		-	-
Critical Hdwy	6.42	-		4.12	-
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	5.42	-		-	-
Follow-up Hdwy	3.518	-		2.218	-
Pot Cap-1 Maneuver	1022	0		-	-
Stage 1	-	0		-	-
Stage 2	1022	0		-	-
Platoon blocked, %					-
Mov Cap-1 Maneuver	1022	-		-	-
Mov Cap-2 Maneuver	1022	-		-	-
Stage 1	-	-		-	-
Stage 2	1022	-		-	-

Approach	WB	SB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	0	-
HCM Lane LOS	A	A	-
HCM 95th %tile Q(veh)	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	1244	0	0
Future Vol, veh/h	0	0	0	1244	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	16965	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	1352	0	0

Major/Minor	Minor2		Major1	
Conflicting Flow All	541	-	0	0
Stage 1	0	-	-	-
Stage 2	541	-	-	-
Critical Hdwy	5.74	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-
Follow-up Hdwy	3.82	-	3.12	-
Pot Cap-1 Maneuver	523	0	-	-
Stage 1	-	0	-	-
Stage 2	500	0	-	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	523	-	-	-
Mov Cap-2 Maneuver	523	-	-	-
Stage 1	-	-	-	-
Stage 2	500	-	-	-

Approach	EB	NB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBL	NBT	EBLn1
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	-	0
HCM Lane LOS	A	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	1244	0	0	0
Future Vol, veh/h	0	0	1244	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	16979
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1352	0	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	676	0	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	7.14	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	3.92	-	-
Pot Cap-1 Maneuver	0	339	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	-	339	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	NBR	WBLn1
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	0					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑			↰	
Traffic Vol, veh/h	0	251	0	0	0	0
Future Vol, veh/h	0	251	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	16983	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	273	0	0	0	0

Major/Minor	Major1				Minor2	
Conflicting Flow All	-	0			137	-
Stage 1	-	-			0	-
Stage 2	-	-			137	-
Critical Hdwy	-	-			6.84	-
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			5.84	-
Follow-up Hdwy	-	-			3.52	-
Pot Cap-1 Maneuver	0	-			842	0
Stage 1	0	-			-	0
Stage 2	0	-			875	0
Platoon blocked, %		-				
Mov Cap-1 Maneuver	-	-			842	-
Mov Cap-2 Maneuver	-	-			842	-
Stage 1	-	-			-	-
Stage 2	-	-			875	-

Approach	EB	SB
HCM Control Delay, s	0	0
HCM LOS		A

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	-
HCM Lane V/C Ratio	-	-
HCM Control Delay (s)	-	0
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	-

Intersection	
Int Delay, s/veh	7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	36	0	0	0	6	3
Future Vol, veh/h	36	0	0	0	6	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	16974	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	0	0	0	7	3

Major/Minor	Minor1				Major2	
Conflicting Flow All	17	-			0	0
Stage 1	0	-			-	-
Stage 2	17	-			-	-
Critical Hdwy	6.42	-			4.12	-
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	5.42	-			-	-
Follow-up Hdwy	3.518	-			2.218	-
Pot Cap-1 Maneuver	1001	0			-	-
Stage 1	-	0			-	-
Stage 2	1006	0			-	-
Platoon blocked, %						-
Mov Cap-1 Maneuver	1001	-			-	-
Mov Cap-2 Maneuver	1001	-			-	-
Stage 1	-	-			-	-
Stage 2	1006	-			-	-

Approach	WB	SB
HCM Control Delay, s	8.7	
HCM LOS	A	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	1001	-	-
HCM Lane V/C Ratio	0.039	-	-
HCM Control Delay (s)	8.7	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	61	0	34	1474	0	0
Future Vol, veh/h	61	0	34	1474	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	16965	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	0	37	1602	0	0

Major/Minor	Minor2		Major1	
Conflicting Flow All	715	-	0	0
Stage 1	0	-	-	-
Stage 2	715	-	-	-
Critical Hdwy	5.74	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-
Follow-up Hdwy	3.82	-	3.12	-
Pot Cap-1 Maneuver	430	0	-	-
Stage 1	-	0	-	-
Stage 2	405	0	-	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	430	-	-	-
Mov Cap-2 Maneuver	430	-	-	-
Stage 1	-	-	-	-
Stage 2	405	-	-	-

Approach	EB	NB
HCM Control Delay, s	14.9	
HCM LOS	B	

Minor Lane/Major Mvmt	NBL	NBT	EBLn1
Capacity (veh/h)	-	-	430
HCM Lane V/C Ratio	-	-	0.154
HCM Control Delay (s)	-	-	14.9
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.5

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	1508	0	0	0
Future Vol, veh/h	0	0	1508	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	16979
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1639	0	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	820	0	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	7.14	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	3.92	-	-
Pot Cap-1 Maneuver	0	273	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	-	273	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	NBR	WBLn1
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	1.1					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑			↰	
Traffic Vol, veh/h	0	304	0	0	39	0
Future Vol, veh/h	0	304	0	0	39	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	16983	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	330	0	0	42	0

Major/Minor	Major1				Minor2	
Conflicting Flow All	-	0			165	-
Stage 1	-	-			0	-
Stage 2	-	-			165	-
Critical Hdwy	-	-			6.84	-
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			5.84	-
Follow-up Hdwy	-	-			3.52	-
Pot Cap-1 Maneuver	0	-			809	0
Stage 1	0	-			-	0
Stage 2	0	-			847	0
Platoon blocked, %		-				
Mov Cap-1 Maneuver	-	-			809	-
Mov Cap-2 Maneuver	-	-			809	-
Stage 1	-	-			-	-
Stage 2	-	-			847	-

Approach	EB	SB
HCM Control Delay, s	0	9.7
HCM LOS		A

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	809
HCM Lane V/C Ratio	-	0.052
HCM Control Delay (s)	-	9.7
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0.2

Intersection	
Int Delay, s/veh	4.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	0	0	0	17	2
Future Vol, veh/h	24	0	0	0	17	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	16974	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	0	0	0	18	2

Major/Minor	Minor1				Major2	
Conflicting Flow All	38	-			0	0
Stage 1	0	-			-	-
Stage 2	38	-			-	-
Critical Hdwy	6.42	-			4.12	-
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	5.42	-			-	-
Follow-up Hdwy	3.518	-			2.218	-
Pot Cap-1 Maneuver	974	0			-	-
Stage 1	-	0			-	-
Stage 2	984	0			-	-
Platoon blocked, %						-
Mov Cap-1 Maneuver	974	-			-	-
Mov Cap-2 Maneuver	974	-			-	-
Stage 1	-	-			-	-
Stage 2	984	-			-	-

Approach	WB	SB
HCM Control Delay, s	8.8	
HCM LOS	A	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	974	-	-
HCM Lane V/C Ratio	0.027	-	-
HCM Control Delay (s)	8.8	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Intersection						
Int Delay, s/veh	0.4					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	41	0	88	1244	0	0
Future Vol, veh/h	41	0	88	1244	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	16965	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	0	96	1352	0	0

Major/Minor	Minor2		Major1	
Conflicting Flow All	733	-	0	0
Stage 1	0	-	-	-
Stage 2	733	-	-	-
Critical Hdwy	5.74	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-
Follow-up Hdwy	3.82	-	3.12	-
Pot Cap-1 Maneuver	421	0	-	-
Stage 1	-	0	-	-
Stage 2	396	0	-	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	421	-	-	-
Mov Cap-2 Maneuver	421	-	-	-
Stage 1	-	-	-	-
Stage 2	396	-	-	-

Approach	EB	NB
HCM Control Delay, s	14.6	
HCM LOS	B	

Minor Lane/Major Mvmt	NBL	NBT	EBLn1
Capacity (veh/h)	-	-	421
HCM Lane V/C Ratio	-	-	0.106
HCM Control Delay (s)	-	-	14.6
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.4

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	1332	0	0	0
Future Vol, veh/h	0	0	1332	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	16979
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1448	0	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	724	0	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	7.14	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	3.92	-	-
Pot Cap-1 Maneuver	0	316	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	-	316	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	NBR	WBLn1
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	0.8					
Movement	**EBL**	**EBT**	**WBT**	**WBR**	**SBL**	**SBR**
Lane Configurations		↑↑			↰	
Traffic Vol, veh/h	0	279	0	0	26	0
Future Vol, veh/h	0	279	0	0	26	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	16983	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	303	0	0	28	0

Major/Minor	Major1				Minor2	
Conflicting Flow All	-	0			152	-
Stage 1	-	-			0	-
Stage 2	-	-			152	-
Critical Hdwy	-	-			6.84	-
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			5.84	-
Follow-up Hdwy	-	-			3.52	-
Pot Cap-1 Maneuver	0	-			825	0
Stage 1	0	-			-	0
Stage 2	0	-			860	0
Platoon blocked, %		-				
Mov Cap-1 Maneuver	-	-			825	-
Mov Cap-2 Maneuver	-	-			825	-
Stage 1	-	-			-	-
Stage 2	-	-			860	-

Approach	EB	SB
HCM Control Delay, s	0	9.5
HCM LOS		A

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	825
HCM Lane V/C Ratio	-	0.034
HCM Control Delay (s)	-	9.5
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0.1

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	16974	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1				Major2	
Conflicting Flow All	1	-			0	0
Stage 1	0	-			-	-
Stage 2	1	-			-	-
Critical Hdwy	6.42	-			4.12	-
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	5.42	-			-	-
Follow-up Hdwy	3.518	-			2.218	-
Pot Cap-1 Maneuver	1022	0			-	-
Stage 1	-	0			-	-
Stage 2	1022	0			-	-
Platoon blocked, %						-
Mov Cap-1 Maneuver	1022	-			-	-
Mov Cap-2 Maneuver	1022	-			-	-
Stage 1	-	-			-	-
Stage 2	1022	-			-	-

Approach	WB	SB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	0	-
HCM Lane LOS	A	A	-
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	0					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	1503	0	0
Future Vol, veh/h	0	0	0	1503	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	16965	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	1634	0	0

Major/Minor	Minor2		Major1	
Conflicting Flow All	654	-	0	0
Stage 1	0	-	-	-
Stage 2	654	-	-	-
Critical Hdwy	5.74	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-
Follow-up Hdwy	3.82	-	3.12	-
Pot Cap-1 Maneuver	461	0	-	-
Stage 1	-	0	-	-
Stage 2	436	0	-	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	461	-	-	-
Mov Cap-2 Maneuver	461	-	-	-
Stage 1	-	-	-	-
Stage 2	436	-	-	-

Approach	EB	NB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBL	NBT	EBLn1
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	-	0
HCM Lane LOS	A	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	0					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	1503	0	0	0
Future Vol, veh/h	0	0	1503	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	16979
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1634	0	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	817	0	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	7.14	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	3.92	-	-
Pot Cap-1 Maneuver	0	274	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	-	274	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	NBR	WBLn1
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	299	0	0	0	0
Future Vol, veh/h	0	299	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	16983	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	325	0	0	0	0

Major/Minor	Major1				Minor2	
Conflicting Flow All	-	0			163	-
Stage 1	-	-			0	-
Stage 2	-	-			163	-
Critical Hdwy	-	-			6.84	-
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			5.84	-
Follow-up Hdwy	-	-			3.52	-
Pot Cap-1 Maneuver	0	-			812	0
Stage 1	0	-			-	0
Stage 2	0	-			849	0
Platoon blocked, %		-				
Mov Cap-1 Maneuver	-	-			812	-
Mov Cap-2 Maneuver	-	-			812	-
Stage 1	-	-			-	-
Stage 2	-	-			849	-

Approach	EB	SB
HCM Control Delay, s	0	0
HCM LOS		A

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	-
HCM Lane V/C Ratio	-	-
HCM Control Delay (s)	-	0
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	-

Intersection						
Int Delay, s/veh	0					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16974	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2			Major2	
Conflicting Flow All	-	1		-	0
Stage 1	-	-		-	-
Stage 2	-	-		-	-
Critical Hdwy	-	6.22		-	-
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	-	-		-	-
Follow-up Hdwy	-	3.318		-	-
Pot Cap-1 Maneuver	0	1084		-	-
Stage 1	0	-		-	-
Stage 2	0	-		-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	1084		-	-
Mov Cap-2 Maneuver	-	-		-	-
Stage 1	-	-		-	-
Stage 2	-	-		-	-

Approach	EB	SB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	16974	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1		Major2	
Conflicting Flow All	1	-	0	0
Stage 1	0	-	-	-
Stage 2	1	-	-	-
Critical Hdwy	6.42	-	4.12	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-
Follow-up Hdwy	3.518	-	2.218	-
Pot Cap-1 Maneuver	1022	0	-	-
Stage 1	-	0	-	-
Stage 2	1022	0	-	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	1022	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-
Stage 1	-	-	-	-
Stage 2	1022	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	0	-
HCM Lane LOS	A	A	-
HCM 95th %tile Q(veh)	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	1269	0	0
Future Vol, veh/h	0	0	0	1269	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	16965	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	1379	0	0

Major/Minor	Minor2		Major1	
Conflicting Flow All	552	-	0	0
Stage 1	0	-	-	-
Stage 2	552	-	-	-
Critical Hdwy	5.74	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-
Follow-up Hdwy	3.82	-	3.12	-
Pot Cap-1 Maneuver	516	0	-	-
Stage 1	-	0	-	-
Stage 2	493	0	-	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	516	-	-	-
Mov Cap-2 Maneuver	516	-	-	-
Stage 1	-	-	-	-
Stage 2	493	-	-	-

Approach	EB	NB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBL	NBT	EBLn1
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	-	0
HCM Lane LOS	A	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	1269	0	0	0
Future Vol, veh/h	0	0	1269	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	16979
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1379	0	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	690	0	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	7.14	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	3.92	-	-
Pot Cap-1 Maneuver	0	332	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	-	332	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	NBR	WBLn1
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	0					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑			↰	
Traffic Vol, veh/h	0	256	0	0	0	0
Future Vol, veh/h	0	256	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	16983	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	278	0	0	0	0

Major/Minor	Major1				Minor2	
Conflicting Flow All	-	0			139	-
Stage 1	-	-			0	-
Stage 2	-	-			139	-
Critical Hdwy	-	-			6.84	-
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			5.84	-
Follow-up Hdwy	-	-			3.52	-
Pot Cap-1 Maneuver	0	-			840	0
Stage 1	0	-			-	0
Stage 2	0	-			873	0
Platoon blocked, %		-				
Mov Cap-1 Maneuver	-	-			840	-
Mov Cap-2 Maneuver	-	-			840	-
Stage 1	-	-			-	-
Stage 2	-	-			873	-

Approach	EB	SB
HCM Control Delay, s	0	0
HCM LOS		A

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	-
HCM Lane V/C Ratio	-	-
HCM Control Delay (s)	-	0
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	-

Intersection	
Int Delay, s/veh	7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	36	0	0	0	6	3
Future Vol, veh/h	36	0	0	0	6	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	16974	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	0	0	0	7	3

Major/Minor	Minor1				Major2	
Conflicting Flow All	17	-			0	0
Stage 1	0	-			-	-
Stage 2	17	-			-	-
Critical Hdwy	6.42	-			4.12	-
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	5.42	-			-	-
Follow-up Hdwy	3.518	-			2.218	-
Pot Cap-1 Maneuver	1001	0			-	-
Stage 1	-	0			-	-
Stage 2	1006	0			-	-
Platoon blocked, %						-
Mov Cap-1 Maneuver	1001	-			-	-
Mov Cap-2 Maneuver	1001	-			-	-
Stage 1	-	-			-	-
Stage 2	1006	-			-	-

Approach	WB	SB
HCM Control Delay, s	8.7	
HCM LOS	A	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	1001	-	-
HCM Lane V/C Ratio	0.039	-	-
HCM Control Delay (s)	8.7	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	61	0	34	1638	0	0
Future Vol, veh/h	61	0	34	1638	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	16965	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	0	37	1780	0	0

Major/Minor	Minor2		Major1	
Conflicting Flow All	786	-	0	0
Stage 1	0	-	-	-
Stage 2	786	-	-	-
Critical Hdwy	5.74	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-
Follow-up Hdwy	3.82	-	3.12	-
Pot Cap-1 Maneuver	397	0	-	-
Stage 1	-	0	-	-
Stage 2	372	0	-	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	397	-	-	-
Mov Cap-2 Maneuver	397	-	-	-
Stage 1	-	-	-	-
Stage 2	372	-	-	-

Approach	EB	NB
HCM Control Delay, s	15.9	
HCM LOS	C	

Minor Lane/Major Mvmt	NBL	NBT	EBLn1
Capacity (veh/h)	-	-	397
HCM Lane V/C Ratio	-	-	0.167
HCM Control Delay (s)	-	-	15.9
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.6

Intersection						
Int Delay, s/veh	2.8					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	135	1537	47	0	0
Future Vol, veh/h	0	135	1537	47	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	16979
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	147	1671	51	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	861	0	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	7.14	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	3.92	-	-
Pot Cap-1 Maneuver	0	257	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	-	257	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Control Delay, s	36.1	0
HCM LOS	E	

Minor Lane/Major Mvmt	NBT	NBR	WBLn1
Capacity (veh/h)	-	-	257
HCM Lane V/C Ratio	-	-	0.571
HCM Control Delay (s)	-	-	36.1
HCM Lane LOS	-	-	E
HCM 95th %tile Q(veh)	-	-	3.2

Intersection						
Int Delay, s/veh	1					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑			↰	
Traffic Vol, veh/h	0	345	0	0	39	0
Future Vol, veh/h	0	345	0	0	39	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	16983	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	375	0	0	42	0

Major/Minor	Major1				Minor2	
Conflicting Flow All	-	0			188	-
Stage 1	-	-			0	-
Stage 2	-	-			188	-
Critical Hdwy	-	-			6.84	-
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			5.84	-
Follow-up Hdwy	-	-			3.52	-
Pot Cap-1 Maneuver	0	-			783	0
Stage 1	0	-			-	0
Stage 2	0	-			825	0
Platoon blocked, %		-				
Mov Cap-1 Maneuver	-	-			783	-
Mov Cap-2 Maneuver	-	-			783	-
Stage 1	-	-			-	-
Stage 2	-	-			825	-

Approach	EB				SB	
HCM Control Delay, s	0				9.9	
HCM LOS					A	

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	783
HCM Lane V/C Ratio	-	0.054
HCM Control Delay (s)	-	9.9
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0.2

Intersection						
Int Delay, s/veh	0					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↱			↰	
Traffic Vol, veh/h	0	0	0	0	0	10
Future Vol, veh/h	0	0	0	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16974	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	11

Major/Minor	Minor2			Major2	
Conflicting Flow All	-	6		-	0
Stage 1	-	-		-	-
Stage 2	-	-		-	-
Critical Hdwy	-	6.22		-	-
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	-	-		-	-
Follow-up Hdwy	-	3.318		-	-
Pot Cap-1 Maneuver	0	1077		-	-
Stage 1	0	-		-	-
Stage 2	0	-		-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	1077		-	-
Mov Cap-2 Maneuver	-	-		-	-
Stage 1	-	-		-	-
Stage 2	-	-		-	-

Approach	EB	SB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	-	-	-

Intersection	
Int Delay, s/veh	4.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	0	0	0	17	2
Future Vol, veh/h	24	0	0	0	17	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	16974	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	0	0	0	18	2

Major/Minor	Minor1			Major2	
Conflicting Flow All	38	-		0	0
Stage 1	0	-		-	-
Stage 2	38	-		-	-
Critical Hdwy	6.42	-		4.12	-
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	5.42	-		-	-
Follow-up Hdwy	3.518	-		2.218	-
Pot Cap-1 Maneuver	974	0		-	-
Stage 1	-	0		-	-
Stage 2	984	0		-	-
Platoon blocked, %					-
Mov Cap-1 Maneuver	974	-		-	-
Mov Cap-2 Maneuver	974	-		-	-
Stage 1	-	-		-	-
Stage 2	984	-		-	-

Approach	WB	SB
HCM Control Delay, s	8.8	
HCM LOS	A	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	974	-	-
HCM Lane V/C Ratio	0.027	-	-
HCM Control Delay (s)	8.8	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	41	0	88	1358	0	0
Future Vol, veh/h	41	0	88	1358	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	16965	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	0	96	1476	0	0

Major/Minor	Minor2		Major1	
Conflicting Flow All	782	-	0	0
Stage 1	0	-	-	-
Stage 2	782	-	-	-
Critical Hdwy	5.74	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-
Follow-up Hdwy	3.82	-	3.12	-
Pot Cap-1 Maneuver	399	0	-	-
Stage 1	-	0	-	-
Stage 2	373	0	-	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	399	-	-	-
Mov Cap-2 Maneuver	399	-	-	-
Stage 1	-	-	-	-
Stage 2	373	-	-	-

Approach	EB		NB
HCM Control Delay, s	15.2		
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1
Capacity (veh/h)	-	-	399
HCM Lane V/C Ratio	-	-	0.112
HCM Control Delay (s)	-	-	15.2
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.4

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	89	1357	120	0	0
Future Vol, veh/h	0	89	1357	120	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	16979
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	97	1475	130	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	803	0	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	7.14	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	3.92	-	-
Pot Cap-1 Maneuver	0	280	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	-	280	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB		NB
HCM Control Delay, s	24.5		0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1
Capacity (veh/h)	-	-	280
HCM Lane V/C Ratio	-	-	0.345
HCM Control Delay (s)	-	-	24.5
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	1.5

Intersection						
Int Delay, s/veh	0.7					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑			↰	
Traffic Vol, veh/h	0	362	0	0	26	0
Future Vol, veh/h	0	362	0	0	26	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	16983	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	393	0	0	28	0

Major/Minor	Major1				Minor2	
Conflicting Flow All	-	0			197	-
Stage 1	-	-			0	-
Stage 2	-	-			197	-
Critical Hdwy	-	-			6.84	-
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			5.84	-
Follow-up Hdwy	-	-			3.52	-
Pot Cap-1 Maneuver	0	-			773	0
Stage 1	0	-			-	0
Stage 2	0	-			817	0
Platoon blocked, %		-				
Mov Cap-1 Maneuver	-	-			773	-
Mov Cap-2 Maneuver	-	-			773	-
Stage 1	-	-			-	-
Stage 2	-	-			817	-

Approach	EB	SB
HCM Control Delay, s	0	9.8
HCM LOS		A

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	773
HCM Lane V/C Ratio	-	0.037
HCM Control Delay (s)	-	9.8
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0.1

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	26
Future Vol, veh/h	0	0	0	0	0	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16974	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	28

Major/Minor	Minor2		Major2	
Conflicting Flow All	-	14	-	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	6.22	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	3.318	-	-
Pot Cap-1 Maneuver	0	1066	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	-	1066	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	-	-	-

Appendix D

VMT Analysis Worksheets

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: November 15, 2019
Project Name: J1258 - Mack Urban Sites 2 & 3
Project Scenario:
Project Address: 1120 S OLIVE ST, 90015

Version 1.2

Project Information

Land Use Type		Value	Units
Housing	*Single Family*	*0*	*DU*
	Multi Family	1,249	DU
	Townhouse	*0*	*DU*
	Hotel	*0*	*Rooms*
	Motel	*0*	*Rooms*
Affordable Housing	*Family*	*0*	*DU*
	Senior	*0*	*DU*
	Special Needs	*0*	*DU*
	Permanent Supportive	*0*	*DU*
Retail	General Retail	8.715	ksf
	Furniture Store	*0.000*	*ksf*
	Pharmacy/Drugstore	*0.000*	*ksf*
	Supermarket	*0.000*	*ksf*
	Bank	*0.000*	*ksf*
	Health Club	*0.000*	*ksf*
	High-Turnover Sit-Down Restaurant	8.715	ksf
	Fast-Food Restaurant	*0.000*	*ksf*
	Quality Restaurant	*0.000*	*ksf*
	Auto Repair	*0.000*	*ksf*
	Home Improvement	*0.000*	*ksf*
	Free-Standing Discount	*0.000*	*ksf*
	Movie Theater	*0*	*Seats*
Office	*General Office*	*0.000*	*ksf*
	Medical Office	*0.000*	*ksf*
Industrial	*Light Industrial*	*0.000*	*ksf*
	Manufacturing	*0.000*	*ksf*
	Warehousing/Self-Storage	*0.000*	*ksf*
School	*University*	*0*	*Students*
	High School	*0*	*Students*
	Middle School	*0*	*Students*
	Elementary	*0*	*Students*
	Private School (K-12)	*0*	*Students*
Other		*0*	*Trips*

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: November 15, 2019
Project Name: J1258 - Mack Urban Sites 2 & 3
Project Scenario:
Project Address: 1120 S OLIVE ST, 90015

Version 1.2

Analysis Results

Total Employees: 52
Total Population: 2,814

Proposed Project		*With Mitigation*	
4,042	**Daily Vehicle Trips**	**4,042**	**Daily Vehicle Trips**
21,172	**Daily VMT**	**21,172**	**Daily VMT**
4.6	**Household VMT per Capita**	**4.6**	**Household VMT per Capita**
N/A	**Work VMT per Employee**	**N/A**	**Work VMT per Employee**

Significant VMT Impact?

APC: Central

Impact Threshold: 15% Below APC Average
Household = 6.0
Work = 7.6

Proposed Project		*With Mitigation*	
VMT Threshold	**Impact**	**VMT Threshold**	**Impact**
Household > 6.0	No	Household > 6.0	No
Work > 7.6	N/A	Work > 7.6	N/A

TDM Strategy Inputs

Strategy Type		Description	Proposed Project	Mitigations
Parking	*Reduce parking supply*	*City code parking provision (spaces)*	*0*	*0*
		Actual parking provision (spaces)	*0*	*0*
	Unbundle parking	*Monthly cost for parking ($)*	*$0*	*$0*
	Parking cash-out	*Employees eligible (%)*	*0%*	*0%*
	Price workplace parking	*Daily parking charge ($)*	*$0.00*	*$0.00*
		Employees subject to priced parking (%)	*0%*	*0%*
	Residential area parking permits	*Cost of annual permit ($)*	*$0*	*$0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Transit	*Reduce transit headways*	*Reduction in headways (increase in frequency) (%)*	*0%*	*0%*
		Existing transit mode share (as a percent of total daily trips) (%)	*0%*	*0%*
		Lines within project site improved (<50%, >=50%)	*0*	*0*
	Implement neighborhood shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees and residents eligible (%)	*0%*	*0%*
	Transit subsidies	*Employees and residents eligible (%)*	*0%*	*0%*
		Amount of transit subsidy per passenger (daily equivalent) ($)	*$0.00*	*$0.00*
Education & Encouragement	*Voluntary travel behavior change program*	*Employees and residents participating (%)*	*0%*	*0%*
	Promotions and marketing	*Employees and residents participating (%)*	*0%*	*0%*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Commute Trip Reductions	*Required commute trip reduction program*	*Employees participating (%)*	*0%*	*0%*
	Alternative Work Schedules and Telecommute	*Employees participating (%)*	*0%*	*0%*
		Type of program	*0*	*0*
	Employer sponsored vanpool or shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees eligible (%)	*0%*	*0%*
		Employer size (small, medium, large)	*0*	*0*
	Ride-share program	*Employees eligible (%)*	*0%*	*0%*
Shared Mobility	*Car share*	*Car share project setting (Urban, Suburban, All Other)*	*0*	*0*
	Bike share	*Within 600 feet of existing bike share station - OR- implementing new bike share station (Yes/No)*	*0*	*0*
	School carpool program	*Level of implementation (Low, Medium, High)*	*0*	*0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Bicycle Infrastructure	*Implement/Improve on-street bicycle facility*	*Provide bicycle facility along site (Yes/No)*	*0*	*0*
	Include Bike parking per LAMC	*Meets City Bike Parking Code (Yes/No)*	*0*	*0*
	Include secure bike parking and showers	*Includes indoor bike parking/lockers, showers, & repair station (Yes/No)*	*0*	*0*
Neighborhood Enhancement	*Traffic calming improvements*	*Streets with traffic calming improvements (%)*	*0%*	*0%*
		Intersections with traffic calming improvements (%)	*0%*	*0%*
	Pedestrian network improvements	*Included (within project and connecting off-site/within project only)*	*0*	*0*

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: November 15, 2019
Project Name: J1258 - Mack Urban Sites 2 & 3
Project Scenario:
Project Address: 1120 S OLIVE ST, 90015

Version 1.2

TDM Adjustments by Trip Purpose & Strategy

Place type: Compact Infill

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Parking	Reduce parking supply	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Parking sections 1 - 5
	Unbundle parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Parking cash-out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Price workplace parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Residential area parking permits	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Transit	Reduce transit headways	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Transit sections 1 - 3
	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Transit subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education & Encouragement	Voluntary travel behavior change program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Education & Encouragement sections 1 - 2
	Promotions and marketing	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Commute Trip Reductions	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Commute Trip Reductions sections 1 - 4
	Alternative Work Schedules and Telecommute Program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Employer sponsored vanpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Ride-share program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Shared Mobility	Car-share	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Shared Mobility sections 1 - 3
	Bike share	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	School carpool program	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Compact Infill

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle Infrastructure	Implement/ Improve on-street bicycle facility	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	TDM Strategy Appendix, Bicycle Infrastructure sections 1 - 3
	Include Bike parking per LAMC	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	
	Include secure bike parking and showers	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	
Neighborhood Enhancement	Traffic calming improvements	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	TDM Strategy Appendix, Neighborhood Enhancement sections 1 - 2
	Pedestrian network improvements	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	

Final Combined & Maximum TDM Effect

	Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
COMBINED TOTAL	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
MAX. TDM EFFECT	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*

= Minimum (X%, 1-[(1-A)*(1-B)...])
where X%=

PLACE TYPE MAX:	*urban*	*75%*
	compact infill	*40%*
	suburban center	*20%*
	suburban	*15%*

Note: (1-[(1-A)*(1-B)...]) reflects the dampened combined effectiveness of TDM Strategies (e.g., A, B,...). See the TDM Strategy Appendix (*Transportation Assessment Guidelines Attachment G)* for further discussion of dampening.

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: November 15, 2019
Project Name: J1258 - Mack Urban Sites 2 & 3
Project Scenario:
Project Address: 1120 S OLIVE ST, 90015

Version 1.2

MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	1,691	-44.2%	944	6.0	10,146	5,664
Home Based Other Production	4,529	-60.1%	1,808	4.1	18,569	7,413
Non-Home Based Other Production	242	-23.6%	185	7.4	1,791	1,369
Home-Based Work Attraction	76	-72.4%	21	7.9	600	166
Home-Based Other Attraction	1,375	-60.7%	540	5.6	7,700	3,024
Non-Home Based Other Attraction	697	-22.0%	544	6.5	4,531	3,536

MXD Methodology with TDM Measures

	Proposed Project			*Project with Mitigation Measures*		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	0.0%	944	5,664	0.0%	944	5,664
Home Based Other Production	0.0%	1,808	7,413	0.0%	1,808	7,413
Non-Home Based Other Production	0.0%	185	1,369	0.0%	185	1,369
Home-Based Work Attraction	0.0%	21	166	0.0%	21	166
Home-Based Other Attraction	0.0%	540	3,024	0.0%	540	3,024
Non-Home Based Other Attraction	0.0%	544	3,536	0.0%	544	3,536

MXD VMT Methodology Per Capita & Per Employee

Total Population: 2,814
Total Employees: 52
APC: Central

	Proposed Project	*Project with Mitigation Measures*
Total Home Based Production VMT	**13,077**	**13,077**
Total Home Based Work Attraction VMT	**166**	**166**
Total Home Based VMT Per Capita	**4.6**	**4.6**
Total Work Based VMT Per Employee	**N/A**	**N/A**

Appendix E

Construction Analysis Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	100	163	0	0	0	0	0	460	69
Future Volume (veh/h)	0	0	0	100	163	0	0	0	0	0	460	69
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				109	177	0				0	500	75
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				745	698	0				0	2615	812
Arrive On Green				0.37	0.37	0.00				0.00	0.51	0.51
Sat Flow, veh/h				1781	1870	0				0	5274	1585
Grp Volume(v), veh/h				109	177	0				0	500	75
Grp Sat Flow(s),veh/h/ln				1781	1870	0				0	1702	1585
Q Serve(g_s), s				3.7	5.9	0.0				0.0	4.8	2.2
Cycle Q Clear(g_c), s				3.7	5.9	0.0				0.0	4.8	2.2
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				745	698	0				0	2615	812
V/C Ratio(X)				0.15	0.25	0.00				0.00	0.19	0.09
Avail Cap(c_a), veh/h				745	698	0				0	2615	812
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				18.8	19.5	0.0				0.0	11.9	11.2
Incr Delay (d2), s/veh				0.4	0.9	0.0				0.0	0.2	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln				2.8	4.4	0.0				0.0	3.1	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				19.2	20.4	0.0				0.0	12.0	11.5
LnGrp LOS				B	C	A				A	B	B
Approach Vol, veh/h					286						575	
Approach Delay, s/veh					20.0						12.0	
Approach LOS					B						B	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		39.0		51.0								
Change Period (Y+Rc), s		* 5.4		* 4.9								
Max Green Setting (Gmax), s		* 34		* 46								
Max Q Clear Time (g_c+I1), s		7.9		6.8								
Green Ext Time (p_c), s		1.3		4.1								
Intersection Summary												
HCM 6th Ctrl Delay			14.6									
HCM 6th LOS			B									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	125	70	0	0	0	0	0	0	154	429	0
Future Volume (veh/h)	0	125	70	0	0	0	0	0	0	154	429	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	136	76							167	466	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	1419	749							333	826	0
Arrive On Green	0.00	0.63	0.63							0.23	0.23	0.00
Sat Flow, veh/h	0	2341	1186							1060	3722	0
Grp Volume(v), veh/h	0	106	106							240	393	0
Grp Sat Flow(s),veh/h/ln	0	1777	1657							1532	1549	0
Q Serve(g_s), s	0.0	1.6	1.8							9.9	7.8	0.0
Cycle Q Clear(g_c), s	0.0	1.6	1.8							10.0	7.8	0.0
Prop In Lane	0.00		0.72							0.70		0.00
Lane Grp Cap(c), veh/h	0	1122	1046							442	717	0
V/C Ratio(X)	0.00	0.09	0.10							0.54	0.55	0.00
Avail Cap(c_a), veh/h	0	1122	1046							879	1602	0
HCM Platoon Ratio	1.00	1.00	1.00							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							0.99	0.99	0.00
Uniform Delay (d), s/veh	0.0	5.1	5.1							24.5	23.7	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.2							1.0	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	0.0	1.0	1.0							5.5	4.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.2	5.3							25.5	24.3	0.0
LnGrp LOS	A	A	A							C	C	A
Approach Vol, veh/h		212									633	
Approach Delay, s/veh		5.2									24.8	
Approach LOS		A									C	

Timer - Assigned Phs		2		4
Phs Duration (G+Y+Rc), s		49.0		21.0
Change Period (Y+Rc), s		* 4.8		* 4.8
Max Green Setting (Gmax), s		* 24		* 36
Max Q Clear Time (g_c+I1), s		3.8		12.0
Green Ext Time (p_c), s		1.1		4.2

Intersection Summary			
HCM 6th Ctrl Delay			19.9
HCM 6th LOS			B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	120	57	115	1462	0	0	0	0
Future Volume (veh/h)	0	0	0	0	120	57	115	1462	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	130	62	125	1589	0			
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	448	214	211	2245	0			
Arrive On Green				0.00	0.37	0.37	0.16	0.16	0.00			
Sat Flow, veh/h				0	1197	571	303	4721	0			
Grp Volume(v), veh/h				0	0	192	630	1084	0			
Grp Sat Flow(s),veh/h/ln				0	0	1768	1773	1549	0			
Q Serve(g_s), s				0.0	0.0	5.3	19.0	23.2	0.0			
Cycle Q Clear(g_c), s				0.0	0.0	5.3	23.5	23.2	0.0			
Prop In Lane				0.00		0.32	0.20		0.00			
Lane Grp Cap(c), veh/h				0	0	662	933	1522	0			
V/C Ratio(X)				0.00	0.00	0.29	0.68	0.71	0.00			
Avail Cap(c_a), veh/h				0	0	662	933	1522	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	0.0	15.4	24.7	24.6	0.0			
Incr Delay (d2), s/veh				0.0	0.0	1.1	3.9	2.9	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln				0.0	0.0	3.7	15.6	13.3	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	16.5	28.6	27.5	0.0			
LnGrp LOS				A	A	B	C	C	A			
Approach Vol, veh/h					192			1714				
Approach Delay, s/veh					16.5			27.9				
Approach LOS					B			C				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		31.0						39.0				
Change Period (Y+Rc), s		* 4.8						4.6				
Max Green Setting (Gmax), s		* 26						34.4				
Max Q Clear Time (g_c+I1), s		7.3						25.5				
Green Ext Time (p_c), s		1.0						6.7				
Intersection Summary												
HCM 6th Ctrl Delay			26.7									
HCM 6th LOS			C									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	129	0	0	0	0	0	1391	95	0	0	0
Future Volume (veh/h)	71	129	0	0	0	0	0	1391	95	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	77	140	0				0	1512	103			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	497	912	0				0	2298	713			
Arrive On Green	0.42	0.42	0.00				0.00	0.45	0.45			
Sat Flow, veh/h	987	2271	0				0	5274	1585			
Grp Volume(v), veh/h	116	101	0				0	1512	103			
Grp Sat Flow(s),veh/h/ln	1555	1617	0				0	1702	1585			
Q Serve(g_s), s	2.1	2.7	0.0				0.0	16.2	2.7			
Cycle Q Clear(g_c), s	3.1	2.7	0.0				0.0	16.2	2.7			
Prop In Lane	0.66		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	734	674	0				0	2298	713			
V/C Ratio(X)	0.16	0.15	0.00				0.00	0.66	0.14			
Avail Cap(c_a), veh/h	734	674	0				0	2298	713			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.65	0.65			
Uniform Delay (d), s/veh	12.7	12.7	0.0				0.0	15.0	11.3			
Incr Delay (d2), s/veh	0.5	0.5	0.0				0.0	1.0	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	2.1	1.8	0.0				0.0	7.8	1.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.2	13.1	0.0				0.0	16.0	11.6			
LnGrp LOS	B	B	A				A	B	B			
Approach Vol, veh/h		217						1615				
Approach Delay, s/veh		13.2						15.7				
Approach LOS		B						B				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		34.0						36.0				
Change Period (Y+Rc), s		* 4.8						4.5				
Max Green Setting (Gmax), s		* 29						31.5				
Max Q Clear Time (g_c+I1), s		5.1						18.2				
Green Ext Time (p_c), s		1.2						8.8				
Intersection Summary												
HCM 6th Ctrl Delay			15.4									
HCM 6th LOS			B									
Notes												

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	432	0	0	396	108	143	1198	48	0	0	0
Future Volume (veh/h)	95	432	0	0	396	108	143	1198	48	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	103	470	0	0	430	117	155	1302	52			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	261	1213	0	0	1401	378	199	1785	599			
Arrive On Green	0.51	0.51	0.00	0.00	0.51	0.51	0.38	0.38	0.38			
Sat Flow, veh/h	406	2480	0	0	2860	746	526	4722	1585			
Grp Volume(v), veh/h	267	306	0	0	275	272	544	913	52			
Grp Sat Flow(s),veh/h/ln	1184	1617	0	0	1777	1736	1844	1702	1585			
Q Serve(g_s), s	8.0	10.4	0.0	0.0	8.1	8.3	23.4	20.5	1.9			
Cycle Q Clear(g_c), s	16.2	10.4	0.0	0.0	8.1	8.3	23.4	20.5	1.9			
Prop In Lane	0.39		0.00	0.00		0.43	0.29		1.00			
Lane Grp Cap(c), veh/h	655	819	0	0	900	879	697	1287	599			
V/C Ratio(X)	0.41	0.37	0.00	0.00	0.31	0.31	0.78	0.71	0.09			
Avail Cap(c_a), veh/h	655	819	0	0	900	879	818	1509	703			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	15.1	13.5	0.0	0.0	13.0	13.0	24.7	23.8	18.0			
Incr Delay (d2), s/veh	0.4	0.3	0.0	0.0	0.9	0.9	4.2	1.3	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	5.6	5.6	0.0	0.0	5.2	5.2	13.9	11.1	1.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.5	13.8	0.0	0.0	13.8	13.9	28.9	25.1	18.1			
LnGrp LOS	B	B	A	A	B	B	C	C	B			
Approach Vol, veh/h		573			547			1509				
Approach Delay, s/veh		14.6			13.9			26.2				
Approach LOS		B			B			C				

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		50.9				50.9		39.1				
Change Period (Y+Rc), s		* 5.3				* 5.3		5.1				
Max Green Setting (Gmax), s		* 40				* 40		39.9				
Max Q Clear Time (g_c+I1), s		10.3				18.2		25.4				
Green Ext Time (p_c), s		3.6				3.9		8.6				

Intersection Summary				
HCM 6th Ctrl Delay			21.1	
HCM 6th LOS			C	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	185	382	0	0	0	0	0	1383	151
Future Volume (veh/h)	0	0	0	185	382	0	0	0	0	0	1383	151
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				201	415	0				0	1503	164
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				765	719	0				0	2559	794
Arrive On Green				0.38	0.38	0.00				0.00	0.50	0.50
Sat Flow, veh/h				1781	1870	0				0	5274	1585
Grp Volume(v), veh/h				201	415	0				0	1503	164
Grp Sat Flow(s),veh/h/ln				1781	1870	0				0	1702	1585
Q Serve(g_s), s				7.0	15.8	0.0				0.0	18.7	5.2
Cycle Q Clear(g_c), s				7.0	15.8	0.0				0.0	18.7	5.2
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				765	719	0				0	2559	794
V/C Ratio(X)				0.26	0.58	0.00				0.00	0.59	0.21
Avail Cap(c_a), veh/h				765	719	0				0	2559	794
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				19.2	21.9	0.0				0.0	15.9	12.5
Incr Delay (d2), s/veh				0.8	3.4	0.0				0.0	1.0	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln				4.8	10.2	0.0				0.0	9.8	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				20.1	25.3	0.0				0.0	16.9	13.1
LnGrp LOS				C	C	A				A	B	B
Approach Vol, veh/h					616						1667	
Approach Delay, s/veh					23.6						16.5	
Approach LOS					C						B	

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		40.0		50.0								
Change Period (Y+Rc), s		* 5.4		* 4.9								
Max Green Setting (Gmax), s		* 35		* 45								
Max Q Clear Time (g_c+I1), s		17.8		20.7								
Green Ext Time (p_c), s		2.9		13.3								

Intersection Summary			
HCM 6th Ctrl Delay			18.4
HCM 6th LOS			B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	149	97	0	0	0	0	0	0	90	1408	0
Future Volume (veh/h)	0	149	97	0	0	0	0	0	0	90	1408	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	162	105							98	1530	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	710	435							185	2599	0
Arrive On Green	0.00	0.34	0.34							0.18	0.18	0.00
Sat Flow, veh/h	0	2211	1297							248	4794	0
Grp Volume(v), veh/h	0	134	133							600	1028	0
Grp Sat Flow(s),veh/h/ln	0	1777	1637							1791	1549	0
Q Serve(g_s), s	0.0	4.9	5.3							20.0	27.4	0.0
Cycle Q Clear(g_c), s	0.0	4.9	5.3							27.4	27.4	0.0
Prop In Lane	0.00		0.79							0.16		0.00
Lane Grp Cap(c), veh/h	0	596	549							1050	1735	0
V/C Ratio(X)	0.00	0.23	0.24							0.57	0.59	0.00
Avail Cap(c_a), veh/h	0	596	549							1050	1735	0
HCM Platoon Ratio	1.00	1.00	1.00							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							0.81	0.81	0.00
Uniform Delay (d), s/veh	0.0	21.5	21.6							27.2	27.3	0.0
Incr Delay (d2), s/veh	0.0	0.9	1.0							1.8	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	0.0	3.7	3.7							17.1	14.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	22.4	22.7							29.0	28.5	0.0
LnGrp LOS	A	C	C							C	C	A
Approach Vol, veh/h		267									1628	
Approach Delay, s/veh		22.5									28.7	
Approach LOS		C									C	

Timer - Assigned Phs		2		4					
Phs Duration (G+Y+Rc), s		35.0		55.0					
Change Period (Y+Rc), s		* 4.8		* 4.6					
Max Green Setting (Gmax), s		* 30		* 50					
Max Q Clear Time (g_c+I1), s		7.3		29.4					
Green Ext Time (p_c), s		1.5		12.0					

Intersection Summary		
HCM 6th Ctrl Delay		27.8
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	354	60	195	951	0	0	0	0
Future Volume (veh/h)	0	0	0	0	354	60	195	951	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	385	65	212	1034	0			
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	615	104	451	1995	0			
Arrive On Green				0.00	0.39	0.39	0.17	0.17	0.00			
Sat Flow, veh/h				0	1560	263	775	4099	0			
Grp Volume(v), veh/h				0	0	450	439	807	0			
Grp Sat Flow(s),veh/h/ln				0	0	1823	1623	1549	0			
Q Serve(g_s), s				0.0	0.0	17.9	21.8	21.4	0.0			
Cycle Q Clear(g_c), s				0.0	0.0	17.9	22.2	21.4	0.0			
Prop In Lane				0.00		0.14	0.48		0.00			
Lane Grp Cap(c), veh/h				0	0	719	880	1566	0			
V/C Ratio(X)				0.00	0.00	0.63	0.50	0.52	0.00			
Avail Cap(c_a), veh/h				0	0	719	880	1566	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	0.0	21.9	27.8	27.4	0.0			
Incr Delay (d2), s/veh				0.0	0.0	4.1	2.0	1.2	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln				0.0	0.0	11.1	13.4	12.2	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	26.0	29.8	28.7	0.0			
LnGrp LOS				A	A	C	C	C	A			
Approach Vol, veh/h					450			1246				
Approach Delay, s/veh					26.0			29.1				
Approach LOS					C			C				

Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		40.0						50.0				
Change Period (Y+Rc), s		4.5						4.5				
Max Green Setting (Gmax), s		35.5						45.5				
Max Q Clear Time (g_c+I1), s		19.9						24.2				
Green Ext Time (p_c), s		2.6						8.9				

Intersection Summary		
HCM 6th Ctrl Delay		28.2
HCM 6th LOS		C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	165	0	0	0	0	0	1123	69	0	0	0
Future Volume (veh/h)	85	165	0	0	0	0	0	1123	69	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	92	179	0				0	1221	75			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	443	866	0				0	2581	801			
Arrive On Green	0.13	0.13	0.00				0.00	0.51	0.51			
Sat Flow, veh/h	964	2300	0				0	5274	1585			
Grp Volume(v), veh/h	143	128	0				0	1221	75			
Grp Sat Flow(s),veh/h/ln	1562	1617	0				0	1702	1585			
Q Serve(g_s), s	6.1	6.4	0.0				0.0	14.0	2.2			
Cycle Q Clear(g_c), s	7.2	6.4	0.0				0.0	14.0	2.2			
Prop In Lane	0.64		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	677	632	0				0	2581	801			
V/C Ratio(X)	0.21	0.20	0.00				0.00	0.47	0.09			
Avail Cap(c_a), veh/h	677	632	0				0	2581	801			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.70	0.70			
Uniform Delay (d), s/veh	26.9	26.6	0.0				0.0	14.5	11.5			
Incr Delay (d2), s/veh	0.7	0.7	0.0				0.0	0.4	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	4.8	4.4	0.0				0.0	7.1	1.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.6	27.3	0.0				0.0	14.9	11.7			
LnGrp LOS	C	C	A				A	B	B			
Approach Vol, veh/h		271						1296				
Approach Delay, s/veh		27.5						14.7				
Approach LOS		C						B				

Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		40.0						50.0				
Change Period (Y+Rc), s		* 4.8						4.5				
Max Green Setting (Gmax), s		* 35						45.5				
Max Q Clear Time (g_c+I1), s		9.2						16.0				
Green Ext Time (p_c), s		1.5						11.0				

Intersection Summary		
HCM 6th Ctrl Delay		16.9
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	368	0	0	642	111	117	991	133	0	0	0
Future Volume (veh/h)	82	368	0	0	642	111	117	991	133	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	89	400	0	0	698	121	127	1077	145			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	249	1221	0	0	1694	293	169	1537	515			
Arrive On Green	1.00	1.00	0.00	0.00	0.56	0.56	0.33	0.33	0.33			
Sat Flow, veh/h	344	2269	0	0	3122	525	521	4727	1585			
Grp Volume(v), veh/h	210	279	0	0	409	410	449	755	145			
Grp Sat Flow(s),veh/h/ln	910	1617	0	0	1777	1776	1844	1702	1585			
Q Serve(g_s), s	5.0	0.0	0.0	0.0	11.9	11.9	19.6	17.3	6.1			
Cycle Q Clear(g_c), s	16.9	0.0	0.0	0.0	11.9	11.9	19.6	17.3	6.1			
Prop In Lane	0.42		0.00	0.00		0.30	0.28		1.00			
Lane Grp Cap(c), veh/h	566	904	0	0	994	993	600	1107	515			
V/C Ratio(X)	0.37	0.31	0.00	0.00	0.41	0.41	0.75	0.68	0.28			
Avail Cap(c_a), veh/h	566	904	0	0	994	993	756	1396	650			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	1.3	0.0	0.0	0.0	11.4	11.4	27.1	26.3	22.6			
Incr Delay (d2), s/veh	0.4	0.2	0.0	0.0	1.3	1.3	3.2	1.0	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	0.1	0.1	0.0	0.0	6.9	6.9	11.9	9.7	3.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1.7	0.2	0.0	0.0	12.6	12.6	30.3	27.3	22.9			
LnGrp LOS	A	A	A	A	B	B	C	C	C			
Approach Vol, veh/h		489			819			1349				
Approach Delay, s/veh		0.8			12.6			27.8				
Approach LOS		A			B			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		55.6				55.6		34.4				
Change Period (Y+Rc), s		* 5.3				* 5.3		5.1				
Max Green Setting (Gmax), s		* 43				* 43		36.9				
Max Q Clear Time (g_c+I1), s		13.9				18.9		21.6				
Green Ext Time (p_c), s		5.9				3.6		7.7				
Intersection Summary												
HCM 6th Ctrl Delay			18.2									
HCM 6th LOS			B									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	144	399	0	0	0	0	0	857	155
Future Volume (veh/h)	0	0	0	144	399	0	0	0	0	0	857	155
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				157	434	0				0	932	168
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				745	698	0				0	2615	812
Arrive On Green				0.37	0.37	0.00				0.00	0.51	0.51
Sat Flow, veh/h				1781	1870	0				0	5274	1585
Grp Volume(v), veh/h				157	434	0				0	932	168
Grp Sat Flow(s),veh/h/ln				1781	1870	0				0	1702	1585
Q Serve(g_s), s				5.5	17.0	0.0				0.0	9.8	5.2
Cycle Q Clear(g_c), s				5.5	17.0	0.0				0.0	9.8	5.2
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				745	698	0				0	2615	812
V/C Ratio(X)				0.21	0.62	0.00				0.00	0.36	0.21
Avail Cap(c_a), veh/h				745	698	0				0	2615	812
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				19.4	23.0	0.0				0.0	13.1	12.0
Incr Delay (d2), s/veh				0.6	4.1	0.0				0.0	0.4	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln				3.9	11.0	0.0				0.0	5.6	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				20.0	27.1	0.0				0.0	13.5	12.6
LnGrp LOS				C	C	A				A	B	B
Approach Vol, veh/h					591						1100	
Approach Delay, s/veh					25.3						13.3	
Approach LOS					C						B	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	39.0	51.0
Change Period (Y+Rc), s	* 5.4	* 4.9
Max Green Setting (Gmax), s	* 34	* 46
Max Q Clear Time (g_c+I1), s	19.0	11.8
Green Ext Time (p_c), s	2.8	8.7

Intersection Summary	
HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	190	169	0	0	0	0	0	0	222	836	0
Future Volume (veh/h)	0	190	169	0	0	0	0	0	0	222	836	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	207	184							241	909	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	916	772							417	1357	0
Arrive On Green	0.00	0.50	0.50							0.36	0.36	0.00
Sat Flow, veh/h	0	1922	1541							925	3901	0
Grp Volume(v), veh/h	0	201	190							410	740	0
Grp Sat Flow(s),veh/h/ln	0	1777	1593							1575	1549	0
Q Serve(g_s), s	0.0	4.5	4.7							15.7	14.0	0.0
Cycle Q Clear(g_c), s	0.0	4.5	4.7							15.7	14.0	0.0
Prop In Lane	0.00		0.97							0.59		0.00
Lane Grp Cap(c), veh/h	0	890	798							652	1122	0
V/C Ratio(X)	0.00	0.23	0.24							0.63	0.66	0.00
Avail Cap(c_a), veh/h	0	890	798							896	1602	0
HCM Platoon Ratio	1.00	1.00	1.00							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							0.95	0.95	0.00
Uniform Delay (d), s/veh	0.0	9.8	9.9							19.3	18.7	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.7							1.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	0.0	3.0	2.9							7.8	6.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.4	10.6							20.2	19.3	0.0
LnGrp LOS	A	B	B							C	B	A
Approach Vol, veh/h		391									1150	
Approach Delay, s/veh		10.5									19.7	
Approach LOS		B									B	

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		39.9		30.1								
Change Period (Y+Rc), s		* 4.8		* 4.8								
Max Green Setting (Gmax), s		* 24		* 36								
Max Q Clear Time (g_c+I1), s		6.7		17.7								
Green Ext Time (p_c), s		2.2		7.6								

Intersection Summary			
HCM 6th Ctrl Delay			17.3
HCM 6th LOS			B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	269	91	278	1901	0	0	0	0
Future Volume (veh/h)	0	0	0	0	269	91	278	1901	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	292	99	302	2066	0			
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	500	170	356	2063	0			
Arrive On Green				0.00	0.37	0.37	0.16	0.16	0.00			
Sat Flow, veh/h				0	1336	453	584	4350	0			
Grp Volume(v), veh/h				0	0	391	870	1498	0			
Grp Sat Flow(s),veh/h/ln				0	0	1789	1684	1549	0			
Q Serve(g_s), s				0.0	0.0	12.3	34.4	33.7	0.0			
Cycle Q Clear(g_c), s				0.0	0.0	12.3	34.4	33.7	0.0			
Prop In Lane				0.00		0.25	0.35		0.00			
Lane Grp Cap(c), veh/h				0	0	670	897	1522	0			
V/C Ratio(X)				0.00	0.00	0.58	0.97	0.98	0.00			
Avail Cap(c_a), veh/h				0	0	670	897	1522	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	0.0	17.5	30.2	29.0	0.0			
Incr Delay (d2), s/veh				0.0	0.0	3.7	23.7	19.5	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln				0.0	0.0	7.7	26.9	22.2	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	21.2	53.9	48.6	0.0			
LnGrp LOS				A	A	C	D	D	A			
Approach Vol, veh/h					391			2368				
Approach Delay, s/veh					21.2			50.5				
Approach LOS					C			D				

Timer - Assigned Phs		2						8
Phs Duration (G+Y+Rc), s		31.0						39.0
Change Period (Y+Rc), s		* 4.8						4.6
Max Green Setting (Gmax), s		* 26						34.4
Max Q Clear Time (g_c+I1), s		14.3						36.4
Green Ext Time (p_c), s		1.9						0.0

Intersection Summary	
HCM 6th Ctrl Delay	46.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	262	0	0	0	0	0	1890	104	0	0	0
Future Volume (veh/h)	168	262	0	0	0	0	0	1890	104	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	183	285	0				0	2054	113			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	551	846	0				0	2298	713			
Arrive On Green	0.14	0.14	0.00				0.00	0.45	0.45			
Sat Flow, veh/h	1106	2113	0				0	5274	1585			
Grp Volume(v), veh/h	244	224	0				0	2054	113			
Grp Sat Flow(s),veh/h/ln	1517	1617	0				0	1702	1585			
Q Serve(g_s), s	9.5	8.8	0.0				0.0	25.9	3.0			
Cycle Q Clear(g_c), s	10.1	8.8	0.0				0.0	25.9	3.0			
Prop In Lane	0.75		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	723	674	0				0	2298	713			
V/C Ratio(X)	0.34	0.33	0.00				0.00	0.89	0.16			
Avail Cap(c_a), veh/h	723	674	0				0	2298	713			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.35	0.35			
Uniform Delay (d), s/veh	21.9	21.4	0.0				0.0	17.7	11.4			
Incr Delay (d2), s/veh	1.3	1.3	0.0				0.0	2.2	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	6.4	5.8	0.0				0.0	11.3	1.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.2	22.7	0.0				0.0	19.9	11.6			
LnGrp LOS	C	C	A				A	B	B			
Approach Vol, veh/h		468						2167				
Approach Delay, s/veh		22.9						19.5				
Approach LOS		C						B				

Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		34.0						36.0				
Change Period (Y+Rc), s		* 4.8						4.5				
Max Green Setting (Gmax), s		* 29						31.5				
Max Q Clear Time (g_c+I1), s		12.1						27.9				
Green Ext Time (p_c), s		2.5						3.3				

Intersection Summary		
HCM 6th Ctrl Delay		20.1
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	575	0	0	585	131	194	1622	69	0	0	0
Future Volume (veh/h)	135	575	0	0	585	131	194	1622	69	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	147	625	0	0	636	142	211	1763	75			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	197	936	0	0	1290	288	231	2067	694			
Arrive On Green	0.45	0.45	0.00	0.00	0.45	0.45	0.44	0.44	0.44			
Sat Flow, veh/h	312	2182	0	0	2981	644	527	4721	1585			
Grp Volume(v), veh/h	324	448	0	0	391	387	738	1236	75			
Grp Sat Flow(s),veh/h/ln	792	1617	0	0	1777	1754	1844	1702	1585			
Q Serve(g_s), s	22.4	19.1	0.0	0.0	14.1	14.1	33.7	28.9	2.5			
Cycle Q Clear(g_c), s	36.5	19.1	0.0	0.0	14.1	14.1	33.7	28.9	2.5			
Prop In Lane	0.45		0.00	0.00		0.37	0.29		1.00			
Lane Grp Cap(c), veh/h	412	722	0	0	794	784	807	1490	694			
V/C Ratio(X)	0.79	0.62	0.00	0.00	0.49	0.49	0.91	0.83	0.11			
Avail Cap(c_a), veh/h	412	722	0	0	794	784	818	1509	703			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	27.1	19.1	0.0	0.0	17.7	17.7	23.7	22.3	14.9			
Incr Delay (d2), s/veh	9.7	1.6	0.0	0.0	2.2	2.2	14.5	4.0	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	10.4	9.9	0.0	0.0	8.5	8.5	21.3	15.2	1.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.8	20.7	0.0	0.0	19.8	19.9	38.2	26.3	15.0			
LnGrp LOS	D	C	A	A	B	B	D	C	B			
Approach Vol, veh/h		772			778			2049				
Approach Delay, s/veh		27.5			19.9			30.2				
Approach LOS		C			B			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		45.5				45.5		44.5				
Change Period (Y+Rc), s		* 5.3				* 5.3		5.1				
Max Green Setting (Gmax), s		* 40				* 40		39.9				
Max Q Clear Time (g_c+I1), s		16.1				38.5		35.7				
Green Ext Time (p_c), s		5.3				0.6		3.7				

Intersection Summary	
HCM 6th Ctrl Delay	27.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	250	756	0	0	0	0	0	1854	215
Future Volume (veh/h)	0	0	0	250	756	0	0	0	0	0	1854	215
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				272	822	0				0	2015	234
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				765	719	0				0	2559	794
Arrive On Green				0.38	0.38	0.00				0.00	0.50	0.50
Sat Flow, veh/h				1781	1870	0				0	5274	1585
Grp Volume(v), veh/h				272	822	0				0	2015	234
Grp Sat Flow(s),veh/h/ln				1781	1870	0				0	1702	1585
Q Serve(g_s), s				10.0	34.6	0.0				0.0	29.3	7.8
Cycle Q Clear(g_c), s				10.0	34.6	0.0				0.0	29.3	7.8
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				765	719	0				0	2559	794
V/C Ratio(X)				0.36	1.14	0.00				0.00	0.79	0.29
Avail Cap(c_a), veh/h				765	719	0				0	2559	794
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				20.1	27.7	0.0				0.0	18.5	13.1
Incr Delay (d2), s/veh				1.3	80.4	0.0				0.0	2.5	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln				6.4	39.8	0.0				0.0	14.7	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				21.4	108.1	0.0				0.0	21.0	14.1
LnGrp LOS				C	F	A				A	C	B
Approach Vol, veh/h					1094						2249	
Approach Delay, s/veh					86.6						20.3	
Approach LOS					F						C	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	40.0	50.0
Change Period (Y+Rc), s	* 5.4	* 4.9
Max Green Setting (Gmax), s	* 35	* 45
Max Q Clear Time (g_c+I1), s	36.6	31.3
Green Ext Time (p_c), s	0.0	11.4

Intersection Summary	
HCM 6th Ctrl Delay	42.0
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	226	230	0	0	0	0	0	0	155	1869	0
Future Volume (veh/h)	0	226	230	0	0	0	0	0	0	155	1869	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	246	250							168	2032	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	596	532							243	2525	0
Arrive On Green	0.00	0.34	0.34							0.18	0.18	0.00
Sat Flow, veh/h	0	1870	1585							347	4663	0
Grp Volume(v), veh/h	0	246	250							810	1390	0
Grp Sat Flow(s),veh/h/ln	0	1777	1585							1759	1549	0
Q Serve(g_s), s	0.0	9.6	11.2							37.5	38.7	0.0
Cycle Q Clear(g_c), s	0.0	9.6	11.2							39.8	38.7	0.0
Prop In Lane	0.00		1.00							0.21		0.00
Lane Grp Cap(c), veh/h	0	596	532							1034	1735	0
V/C Ratio(X)	0.00	0.41	0.47							0.78	0.80	0.00
Avail Cap(c_a), veh/h	0	596	532							1034	1735	0
HCM Platoon Ratio	1.00	1.00	1.00							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							0.59	0.59	0.00
Uniform Delay (d), s/veh	0.0	23.1	23.6							32.3	31.9	0.0
Incr Delay (d2), s/veh	0.0	2.1	3.0							3.6	2.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	0.0	6.4	6.7							23.2	19.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.2	26.6							35.9	34.3	0.0
LnGrp LOS	A	C	C							D	C	A
Approach Vol, veh/h		496									2200	
Approach Delay, s/veh		25.9									34.9	
Approach LOS		C									C	

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		35.0		55.0								
Change Period (Y+Rc), s		* 4.8		* 4.6								
Max Green Setting (Gmax), s		* 30		* 50								
Max Q Clear Time (g_c+I1), s		13.2		41.8								
Green Ext Time (p_c), s		2.9		7.5								

Intersection Summary			
HCM 6th Ctrl Delay			33.2
HCM 6th LOS			C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	605	149	493	1513	0	0	0	0
Future Volume (veh/h)	0	0	0	0	605	149	493	1513	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	658	162	536	1645	0			
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	572	141	606	1802	0			
Arrive On Green				0.00	0.39	0.39	0.17	0.17	0.00			
Sat Flow, veh/h				0	1449	357	1064	3718	0			
Grp Volume(v), veh/h				0	0	820	771	1410	0			
Grp Sat Flow(s),veh/h/ln				0	0	1806	1531	1549	0			
Q Serve(g_s), s				0.0	0.0	35.5	45.3	40.2	0.0			
Cycle Q Clear(g_c), s				0.0	0.0	35.5	45.3	40.2	0.0			
Prop In Lane				0.00		0.20	0.69		0.00			
Lane Grp Cap(c), veh/h				0	0	712	842	1566	0			
V/C Ratio(X)				0.00	0.00	1.15	0.92	0.90	0.00			
Avail Cap(c_a), veh/h				0	0	712	842	1566	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	0.0	27.3	37.4	35.3	0.0			
Incr Delay (d2), s/veh				0.0	0.0	83.6	16.4	8.7	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln				0.0	0.0	40.3	27.1	22.8	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	110.9	53.8	43.9	0.0			
LnGrp LOS				A	A	F	D	D	A			
Approach Vol, veh/h					820			2181				
Approach Delay, s/veh					110.9			47.4				
Approach LOS					F			D				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		40.0						50.0				
Change Period (Y+Rc), s		4.5						4.5				
Max Green Setting (Gmax), s		35.5						45.5				
Max Q Clear Time (g_c+I1), s		37.5						47.3				
Green Ext Time (p_c), s		0.0						0.0				
Intersection Summary												
HCM 6th Ctrl Delay			64.8									
HCM 6th LOS			E									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	265	0	0	0	0	0	1930	90	0	0	0
Future Volume (veh/h)	196	265	0	0	0	0	0	1930	90	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	213	288	0				0	2098	98			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	552	732	0				0	2581	801			
Arrive On Green	0.13	0.13	0.00				0.00	0.51	0.51			
Sat Flow, veh/h	1224	1958	0				0	5274	1585			
Grp Volume(v), veh/h	258	243	0				0	2098	98			
Grp Sat Flow(s),veh/h/ln	1479	1617	0				0	1702	1585			
Q Serve(g_s), s	14.5	12.4	0.0				0.0	31.0	2.9			
Cycle Q Clear(g_c), s	14.5	12.4	0.0				0.0	31.0	2.9			
Prop In Lane	0.83		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	652	632	0				0	2581	801			
V/C Ratio(X)	0.40	0.38	0.00				0.00	0.81	0.12			
Avail Cap(c_a), veh/h	652	632	0				0	2581	801			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.13	0.13			
Uniform Delay (d), s/veh	30.2	29.3	0.0				0.0	18.7	11.7			
Incr Delay (d2), s/veh	1.8	1.8	0.0				0.0	0.4	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	8.6	8.1	0.0				0.0	12.6	1.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.0	31.0	0.0				0.0	19.1	11.8			
LnGrp LOS	C	C	A				A	B	B			
Approach Vol, veh/h		501						2196				
Approach Delay, s/veh		31.5						18.7				
Approach LOS		C						B				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		40.0						50.0				
Change Period (Y+Rc), s		* 4.8						4.5				
Max Green Setting (Gmax), s		* 35						45.5				
Max Q Clear Time (g_c+I1), s		16.5						33.0				
Green Ext Time (p_c), s		2.8						10.5				

Intersection Summary	
HCM 6th Ctrl Delay	21.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	565	0	0	855	157	165	1712	157	0	0	0
Future Volume (veh/h)	137	565	0	0	855	157	165	1712	157	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	149	614	0	0	929	171	179	1861	171			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	162	880	0	0	1422	262	178	1976	650			
Arrive On Green	0.95	0.95	0.00	0.00	0.47	0.47	0.41	0.41	0.41			
Sat Flow, veh/h	211	1940	0	0	3090	551	433	4820	1585			
Grp Volume(v), veh/h	268	495	0	0	551	549	764	1276	171			
Grp Sat Flow(s),veh/h/ln	449	1617	0	0	1777	1771	1849	1702	1585			
Q Serve(g_s), s	21.4	3.6	0.0	0.0	21.2	21.3	36.9	31.8	6.4			
Cycle Q Clear(g_c), s	42.7	3.6	0.0	0.0	21.2	21.3	36.9	31.8	6.4			
Prop In Lane	0.56		0.00	0.00		0.31	0.23		1.00			
Lane Grp Cap(c), veh/h	275	767	0	0	843	840	758	1396	650			
V/C Ratio(X)	0.97	0.65	0.00	0.00	0.65	0.65	1.01	0.91	0.26			
Avail Cap(c_a), veh/h	275	767	0	0	843	840	758	1396	650			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	13.1	1.3	0.0	0.0	18.0	18.0	26.6	25.1	17.6			
Incr Delay (d2), s/veh	46.5	1.9	0.0	0.0	3.9	3.9	34.6	9.5	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	11.1	1.6	0.0	0.0	12.2	12.2	27.6	17.8	3.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.6	3.2	0.0	0.0	21.9	22.0	61.2	34.6	17.8			
LnGrp LOS	E	A	A	A	C	C	F	C	B			
Approach Vol, veh/h		763			1100			2211				
Approach Delay, s/veh		23.0			21.9			42.5				
Approach LOS		C			C			D				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		48.0				48.0		42.0				
Change Period (Y+Rc), s		* 5.3				* 5.3		5.1				
Max Green Setting (Gmax), s		* 43				* 43		36.9				
Max Q Clear Time (g_c+I1), s		23.3				44.7		38.9				
Green Ext Time (p_c), s		7.5				0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			33.3									
HCM 6th LOS			C									
Notes												

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX J.2

Haul Route Letter

FORM GEN. 160 (Rev. 6-80)

CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

DATE: September 25, 2020

14 – Central SR #144661
Olive St, 1105 S

TO: Maria Reyes, Project Assistant
Los Angeles City Planning
200 N Spring St, Room 621
Phone: (213) 978-1161
E-mail: maria.reyes@lacity.org

Edward K. Yu

FROM: Edward K. Yu, Department of Transportation
Central District, 100 S Main St, 9th Floor, MAIL STOP 725

SUBJECT: IMPORT/EXPORT OF EARTH – 1105 - 1123 S OLIVE STREET

The Department of Transportation has reviewed the requested Haul Route with the following recommendations:

1. RECOMMENDED HAUL ROUTE:

Loaded Trucks: Exit jobsite on Olive St (Northbound); Left turn on 11th St (Westbound); Left turn on Grand Ave (Southbound); Right turn on 17th St (Westbound); Keep left onto W/B Santa Monica Fwy (I-10) on-ramp.

Empty Trucks: E/B Santa Monica Fwy (I-10); Exit towards Convention Center / Grand Ave / Olive St (Eastbound); Left turn on Olive St and continue to Jobsite (Northbound).

2. DAYS AND HOURS OF HAULING OPERATION

Hauling should be from 9 AM to 3 PM weekdays, and 8 AM to 4 PM on Saturdays.
No hauling should be performed on Sundays.

3. STAGING AREA

Trucks shall be staged on the job site only. No staging of trucks on city streets at any time.
NOTE: NO INTERFERENCE TO TRAFFIC, ACCESS TO DRIVEWAYS MUST BE MAINTAINED AT ALL TIMES.

4. ADDITIONAL COMMENTS AND/OR REQUIREMENTS

The contractor shall contact LADOT at (213) 485-2298 at least four business days prior to hauling to post "Temporary Tow-Away No Stopping" signs along Olive Street, adjacent to the jobsite for hauling if needed.

Flagger control shall be provided during the hauling operations to assist with ingress and egress of truck traffic on Olive Street.

If you have any questions, please call Syunik Zohrabyan at (213) 972-4943.

APPENDIX J.3

LADOT Correspondence

FORM GEN. 160A (Rev. 1/82)

CITY OF LOS ANGELES

INTER-DEPARTMENTAL CORRESPONDENCE

1105 & 1120 S. Olive St
DOT Case No. CEN 18-46848

Date: January 28, 2020

To: Debbie Lawrence, Senior City Planner
Department of City Planning

From: Wes Pringle, Transportation Engineer
Department of Transportation

Subject: **TRANSPORTATION ASSESSMENT FOR THE PROPOSED RESIDENTIAL MIXED-USE PROJECT AT 1105 & 1120 SOUTH OLIVE STREET**

The Department of Transportation (DOT) has reviewed the transportation assessment prepared by Gibson Transportation Consulting, Inc., dated December 2019, for the proposed mixed-use project located at 1105 & 1120 South Olive Street. In compliance with Senate Bill (SB) 743 and the California Environmental Quality Act (CEQA), a vehicle miles traveled analysis is required to identify the project's ability to promote the reduction of green-house gas emissions, access to diverse land uses, and the development of multi-modal networks. The significance of a project's impact in this regard is measured against the VMT thresholds established in DOT's Transportation Assessment Guidelines (TAG), as described below.

DISCUSSION AND FINDINGS

A. Project Description

The project is proposing the construction of a mixed-use development with 536 apartment units and 6,153 square feet (sf) of ground floor commercial space, including retail and restaurant uses, on Site 2 and a mixed-use development with 713 apartments and 11,277 sf of commercial space, evenly split between retail and restaurant uses, on Site 3. Parking would be provided on-site, with driveways on Olive Street and Margo Street (alley) for Site 2 and on Olive Street and an alleyway between Olive Street and Hill Street for Site 3. Pedestrian access to the Project would be provided along Olive Street and along 11th Street. The Project Sites are currently occupied by active surface parking facilities. The Project would be constructed in two phases. Phase 1 (Site 2) is anticipated to be completed by 2024 and Phase 2 (Full Buildout) (Sites 2 and 3) is anticipated to be completed by 2026.

B. CEQA Screening Threshold

A trip generation analysis was conducted to determine if the project would exceed 250 daily vehicle trips screening threshold. Using the City of Los Angeles VMT Calculator tool, which draws upon trip rate estimates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition as well as applying trip generation adjustments when applicable, based on sociodemographic data and the built environment factors of the project's surroundings, it was determined that the project does exceed the 250 daily vehicle trips threshold. A copy of the VMT calculator screening page is provided as **Attachment A** to this report.

C. Transportation Impacts

On July 30, 2019, pursuant to Senate Bill (SB) 743 and the recent changes to Section 15064.3 of the State's California Environmental Quality Act (CEQA) Guidelines, the City of Los Angeles adopted vehicle miles traveled (VMT) as a criteria in determining transportation impacts under CEQA. The new DOT Transportation Assessment Guidelines (TAG) provide instructions on preparing transportation assessments for land use proposals and defines the significant impact thresholds.

The DOT VMT Calculator tool measures project impact in terms of Household VMT per Capita, and Work VMT per Employee. DOT identified distinct thresholds for significant VMT impacts for each of the seven Area Planning Commission (APC) areas in the City. For the Central APC area, in which the project is located, the following thresholds have been established:

- Household VMT per Capita: 6.0
- Work VMT per Employee: 7.6

As cited in the VMT Analysis report, the Household VMT projection for the proposed project is 4.7. The Project is not expected to generate any work VMT per employee and would not result in a significant work VMT impact. Because the Project would not result in a significant household or work VMT impact, mitigation measures would not be required. A copy of the VMT Calculator summary reports is provided as **Attachment B** to this report.

Additionally, the analysis included further discussion of the transportation impact thresholds:

T-1 Conflicting with plans, programs, ordinances, or policies
T-2.1 Causing substantial vehicle miles traveled
T-2.2 Substantially inducing additional automobile travel
T-3 Substantially increasing hazards due to a geometric design feature or incompatible use

A Project's impacts per Thresholds T-2.1 and 2.2 are determined by using the VMT calculator and are discussed above. The assessment determined that the project would not have a significant transportation impact under any of the above thresholds.

C. Access and Circulation

During the preparation of the new CEQA guidelines, the State's Office of Planning and Research stressed that lead agencies can continue to apply traditional operational analysis requirements to inform land use decisions provided that such analyses were outside of the CEQA process. The authority for requiring non-CEQA transportation analysis and requiring improvements to address potential circulation deficiencies, lies in the City of Los Angeles' Site Plan Review authority as established in Section 16.05 of the Los Angeles Municipal Code (LAMC). Therefore, DOT continues to require and review a project's site access, circulation, and operational plan to determine if any access enhancements, transit amenities, intersection improvements, traffic signal upgrades, neighborhood traffic calming, or other improvements are needed. In accordance with this authority, the project has completed a circulation analysis using Synchro software as a screening methodology. A copy of the circulation analysis table that summarizes these potential deficiencies is provided as **Attachment B** to this report.

PROJECT REQUIREMENTS

A. Parking Requirements

All Project parking would be provided on-site. Site 2 would provide a parking garage with a total of 593 automobile spaces and 235 bicycle spaces in five below-grade levels and four above grade levels. Access would be provided via driveways on Olive Street and Margo Street. Site 3 would provide a parking garage with a total of 764 automobile spaces and 290 bicycle spaces in five below-grade levels and four above-grade levels. Access would be provided via a driveway on Olive Street and an alleyway. In total, the Project would provide 1,357 automobile parking spaces and 525 bicycle parking spaces, including 54 short-term and 471 long-term bicycle spaces. The project will also comply with the Los Angeles Municipal Code bicycle parking requirements for amount of short-term and long-term bicycle stalls. The applicant should check with the Department of Building and Safety on the number of Code-required parking spaces needed for this project.

B. Highway Dedication and Street Widening Requirements

Per the Mobility Element of the General Plan, **Grand Avenue** and **Olive Street** are designated as Avenue II that would require a 28-foot half-width roadway within a 43-foot half-width right-of-way. **11th Street** is designed as collector Street that would require a 20-foot half-width roadway within a 33-foot half-width right-of-way. The applicant should check with BOE's Land Development Group to determine the specific highway dedication, street widening and/or sidewalk requirements for this project.

C. Project Access and Circulation

Project access to the site would be provided through driveways on Olive Street and Margo Street (alley) for Site 2 and on Olive Street and an alleyway between Olive Street and Hill Street for Site 3.Driveway dimensions require separate review and approval and should be coordinated with DOT's Citywide Planning Coordination Section (201 N. Figueroa Street, 5th Floor, Room 550, @ 213-482-7024). In order to minimize and prevent last minute building design changes, the applicant should contact DOT early in the design process for driveway width and internal circulation requirements so that such traffic flow considerations are designed and incorporated early into the building and parking layout plans. A copy of the site plan is included in **Attachment C.**

D. Worksite Traffic Control Requirements

DOT recommends that a construction work site traffic control plan be submitted to DOT's Citywide Temporary Traffic Control Section or Permit Plan Review Section for review and approval prior to the start of any construction work. Refer to http://ladot.lacity.org/what-we-do/plan-review to determine which section to coordinate review of the work site traffic control plan. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. DOT also recommends that all construction related truck traffic be restricted to off-peak hours to the extent feasible.

E. Development Review Fees

Section 19.15 of the LAMC identifies specific fees for traffic study review, condition clearance, and permit issuance. The applicant shall comply with any applicable fees per this ordinance. If you have any questions, please contact Russell Hasan of my staff at (213) 482-7117.

Attachments

J:\Letters\2020\CEN18-46848_1105 Olive St Mixed-Use

c: Mark Jones, Council District 13
Ed Yu, Central District, DOT
Taimour Tanavoli, Case Management, DOT
Matthew Masuda, Central District, BOE
Janet Ye, Gibson Transportation Consulting, Inc.

Attachment A

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: November 15, 2019
Project Name: J1258 - Mack Urban Sites 2 & 3
Project Scenario:
Project Address: 1120 S OLIVE ST, 90015

Version 1.2

Project Information

Land Use Type		Value	Units
Housing	*Single Family*	*0*	*DU*
	Multi Family	1,249	DU
	Townhouse	*0*	*DU*
	Hotel	*0*	*Rooms*
	Motel	*0*	*Rooms*
Affordable Housing	*Family*	*0*	*DU*
	Senior	*0*	*DU*
	Special Needs	*0*	*DU*
	Permanent Supportive	*0*	*DU*
Retail	General Retail	8.715	ksf
	Furniture Store	*0.000*	*ksf*
	Pharmacy/Drugstore	*0.000*	*ksf*
	Supermarket	*0.000*	*ksf*
	Bank	*0.000*	*ksf*
	Health Club	*0.000*	*ksf*
	High-Turnover Sit-Down Restaurant	8.715	ksf
	Fast-Food Restaurant	*0.000*	*ksf*
	Quality Restaurant	*0.000*	*ksf*
	Auto Repair	*0.000*	*ksf*
	Home Improvement	*0.000*	*ksf*
	Free-Standing Discount	*0.000*	*ksf*
	Movie Theater	*0*	*Seats*
Office	*General Office*	*0.000*	*ksf*
	Medical Office	*0.000*	*ksf*
Industrial	*Light Industrial*	*0.000*	*ksf*
	Manufacturing	*0.000*	*ksf*
	Warehousing/Self-Storage	*0.000*	*ksf*
School	*University*	*0*	*Students*
	High School	*0*	*Students*
	Middle School	*0*	*Students*
	Elementary	*0*	*Students*
	Private School (K-12)	*0*	*Students*
Other		*0*	*Trips*

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: November 15, 2019
Project Name: J1258 - Mack Urban Sites 2 & 3
Project Scenario:
Project Address: 1120 S OLIVE ST, 90015

Version 1.2

Analysis Results

Total Employees: 52
Total Population: 2,814

Proposed Project		*With Mitigation*	
4,042	**Daily Vehicle Trips**	**4,042**	**Daily Vehicle Trips**
21,172	**Daily VMT**	**21,172**	**Daily VMT**
4.6	**Household VMT per Capita**	**4.6**	**Household VMT per Capita**
N/A	**Work VMT per Employee**	**N/A**	**Work VMT per Employee**

Significant VMT Impact?

APC: Central

Impact Threshold: 15% Below APC Average
Household = 6.0
Work = 7.6

Proposed Project		*With Mitigation*	
VMT Threshold	**Impact**	**VMT Threshold**	**Impact**
Household > 6.0	No	Household > 6.0	No
Work > 7.6	N/A	Work > 7.6	N/A

Attachment B

TABLE 10
FUTURE WITH PROJECT CONDITIONS (YEAR 2024) - PHASE 1
INTERSECTION LEVELS OF SERVICE

No	Intersection	Peak Hour	Future without Project		Future with Project		
			Delay	LOS	Delay	LOS	Change in Delay
1.	Grand Avenue & 11th Street	AM	17.2	B	17.4	B	0.2
		PM	41.0	D	42.3	D	1.3
2.	Grand Avenue & 12th Street	AM	17.5	B	17.4	B	-0.1
		PM	32.3	C	32.5	C	0.2
3.	Olive Street & 11th Street	AM	39.9	D	44.1	D	4.2
		PM	58.9	E	62.8	E	3.9
4.	Olive Street & 12th Street	AM	19.3	B	19.7	B	0.4
		PM	20.4	C	21.1	C	0.7
5.	Olive Street & Pico Boulevard	AM	25.9	C	26.3	C	0.4
		PM	30.0	C	32.2	C	2.2

Notes
Delay is measured in seconds per vehicle
LOS = Level of service
Results per Synchro 10 (HCM methodology)

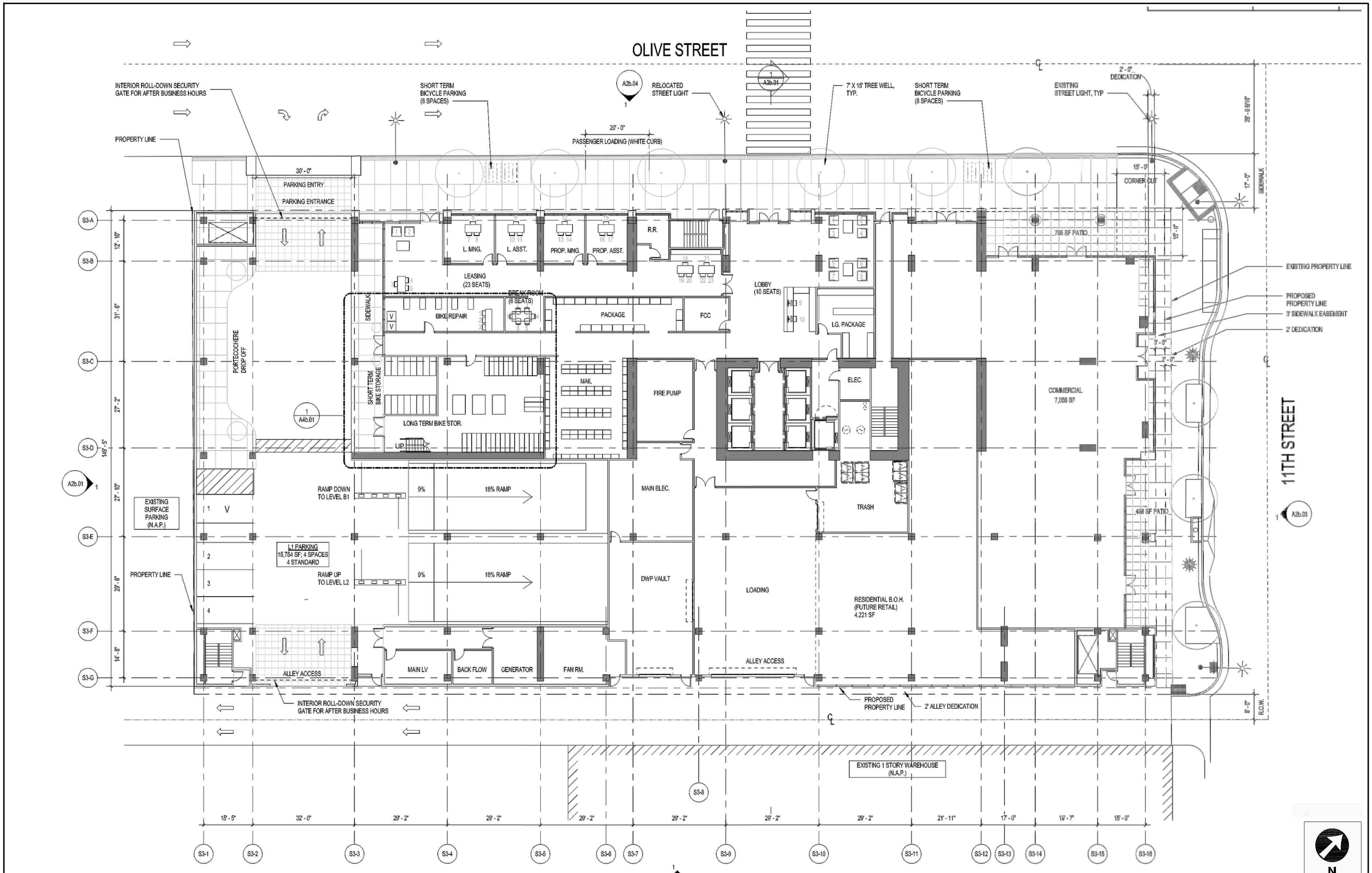
TABLE 11
FUTURE WITH PROJECT CONDITIONS (YEAR 2026) - PHASE 2 (FULL BUILDOUT)
INTERSECTION LEVELS OF SERVICE

No	Intersection	Peak Hour	Future without Project		Future with Project		
			Delay	LOS	Delay	LOS	Change in Delay
1.	Grand Avenue & 11th Street	AM	17.3	B	18.6	B	1.3
		PM	42.5	D	49.4	D	6.9
2.	Grand Avenue & 12th Street	AM	17.4	B	17.2	B	-0.2
		PM	32.5	C	33.4	C	0.9
3.	Olive Street & 11th Street	AM	41.8	D	62.6	E	20.8
		PM	60.9	E	67.9	E	7.0
4.	Olive Street & 12th Street	AM	19.5	B	20.2	C	0.7
		PM	20.5	C	22.0	C	1.5
5.	Olive Street & Pico Boulevard	AM	26.6	C	27.3	C	0.7
		PM	31.5	C	35.8	D	4.3

Notes
Delay is measured in seconds per vehicle
LOS = Level of service
Results per Synchro 10 (HCM methodology)

Gibson transportation consulting, inc.

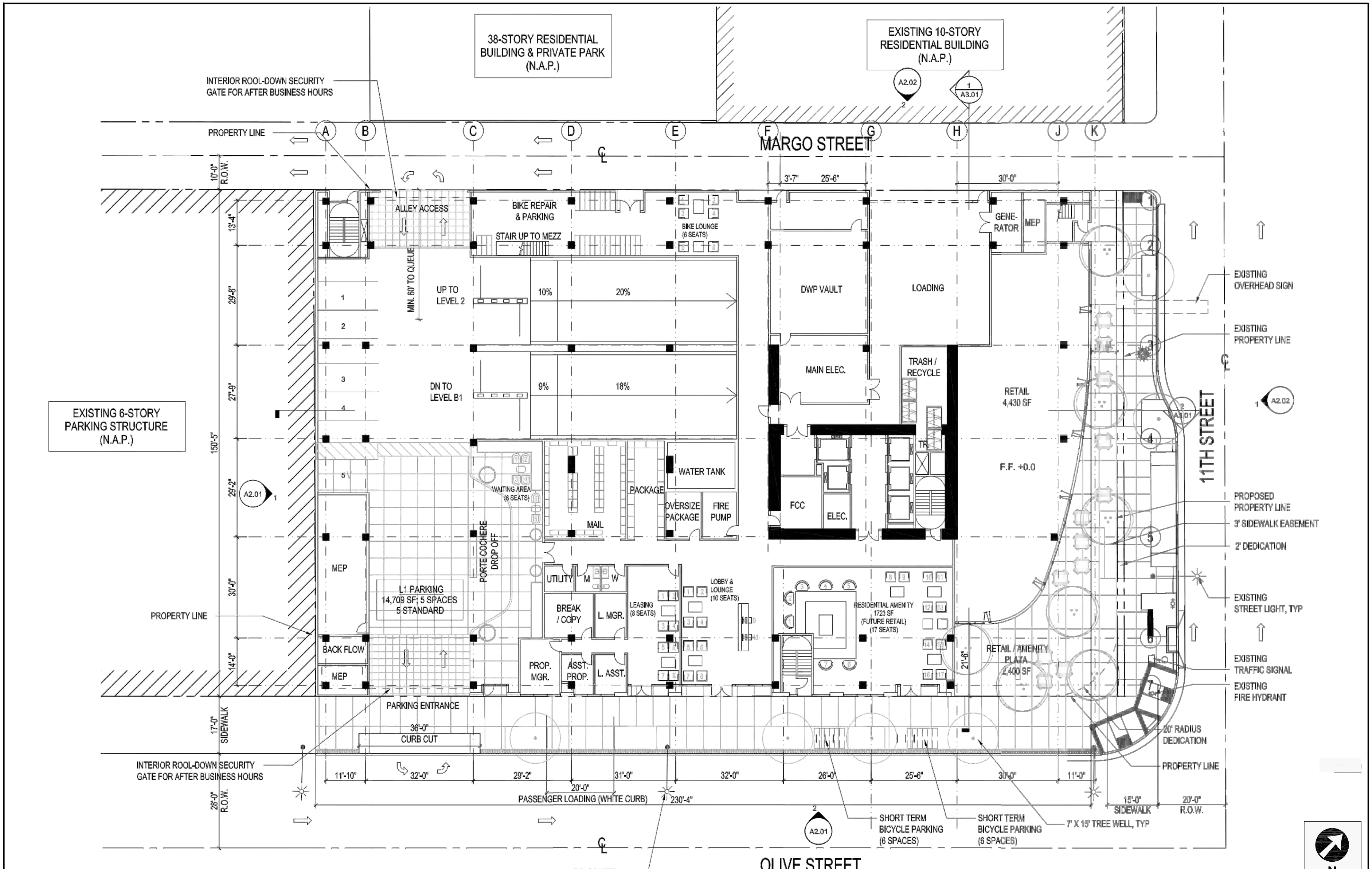
Attachment C



Source: CallisonRTKL. April, 2018.

PROJECT SITE PLAN (SITE 3)

FIGURE 1B



Source: CallisonRTKL. November, 2019.

PROJECT SITE PLAN (SITE 2)

FIGURE 1A

From: Wes Pringle <wes.pringle@lacity.org>
Sent: Tuesday, August 1, 2023 2:24 PM
To: Nuri Cho <nuri.cho@lacity.org>
Cc: Patrick Gibson <pgibson@gibsontrans.com>
Subject: 1105 & 1120 S. Olive Street Mixed-Use Revised Project

Hi Nuri,

Gibson Transportation Consulting has contacted DOT regarding the subject mixed-use project. The overall project has changed from 1,249 apartments and 17,430 square-feet (sf) of retail use to the same number of apartments and 15,455 sf of retail use (reduced by 1,975 sf). DOT's letter on the original study, dated January 28, 2020, indicated that there would be no significant VMT impact and no adverse queueing.

The reduction in retail use would not change the findings of the original study. Also, since the analysis of future conditions in the study included a list of related projects and a 1% growth rate, any changes to the related project list from the original study date would be accommodated by the conservative background traffic estimate. Therefore, a new revised study with a new related project list is not necessary.

Wes Pringle, P.E.
Transportation Engineer
Metro Development Review
100 S. Main St, 9th Floor
Los Angeles, CA 90012
213.972.8482

Los Angeles Department of Transportation

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